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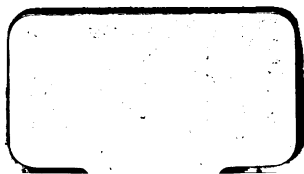
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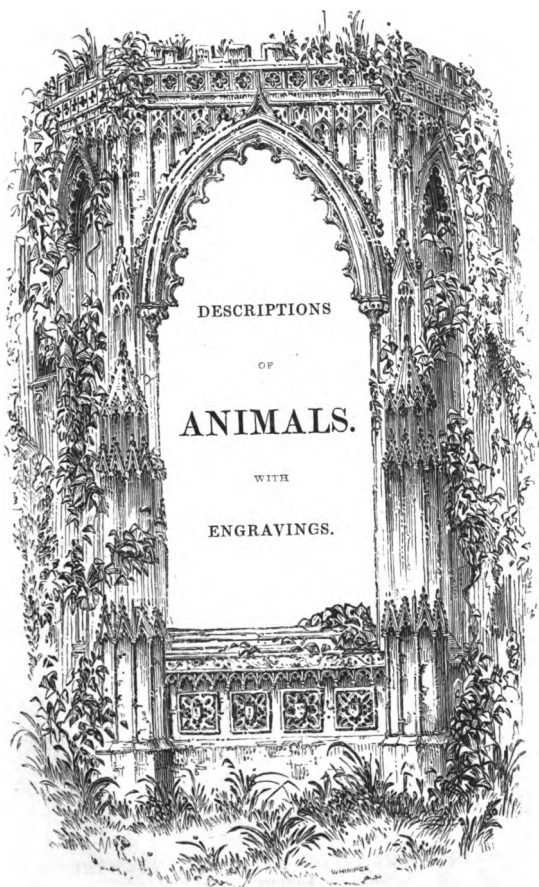
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*Zoological sketches, descriptions
of one hundred and twenty ...*

44.620.





LONDON :
R. CLAY, PRINTER, BREAD STREET HILL.

ZOOLOGICAL SKETCHES;
CONSISTING OF
DESCRIPTIONS
OF
ONE HUNDRED AND TWENTY
ANIMALS;

ILLUSTRATED BY ENGRAVINGS.

T. B. L.

O Lord, how manifold are thy works ! in wisdom hast thou made them all :
The earth is full of thy riches.

So is the great and wide sea also ; wherein are things creeping innumerable,
both small and great beasts.

PSALM civ. 24, 25.

Behold the fowls of the air ; for they sow not, neither do they reap, nor
gather into barns ; yet your heavenly Father feedeth them.

MATT. vi. 26.

PUBLISHED UNDER THE DIRECTION OF
THE COMMITTEE OF GENERAL LITERATURE AND EDUCATION
APPOINTED BY THE SOCIETY FOR PROMOTING
CHRISTIAN KNOWLEDGE.



LONDON:

PRINTED FOR THE

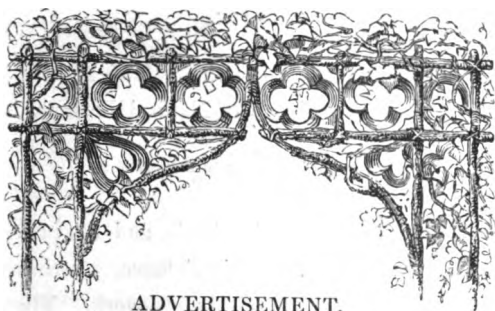
SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE:

SOLD AT THE DEPOSITORY,

GREAT QUEEN STREET, LINCOLN'S INN FIELDS;

AND BY ALL BOOKSELLERS.

1844.



THE greater portion of the matter contained in the following pages has already been put forth by the Committee of General Literature and Education in a different shape. It having been thought that the prints and descriptions of animals published on separate sheets, under the direction of that Committee, might prove an acceptable collection if presented in the form of a volume, the author has revised, and in some cases re-written and expanded, his former notices; while the artist has prepared, on a reduced scale, the cuts intended to illustrate the work.

The chief objects which the writer has endeavoured to keep in view, may be stated in a few words. They are these:—

I. To lead the thoughts of the Reader to a contemplation of the wisdom and goodness of God, as

evinced in the works of creation. The best use we can make of the knowledge of Natural History, is

To rise through nature up to nature's God;

and in His construction of animals, and the provision which He has made for their defence, nourishment, and comfort, to discover His handy-work. There is not a living thing that does not in this point of view praise Him in His name **JEHOVAH**. "The eyes of all wait upon Thee: and thou givest them their meat in due season. Thou openest thine hand, and satisfiest the desire of every living thing."*

Considerations such as these have a tendency to raise in the mind a due sense of the wisdom and power of the Almighty; and their proper effect on beings gifted with reason, must be admiration, humility, and gratitude. Well may we say of Him, in the language of Job, that He "doeth great things past finding out; yea, and wonders without number."†

II. To furnish entertainment, especially to the young, and to store the mind with useful and interesting facts. An author, in the early part of the last century, speaking of that excellent work, the "Physico-Theology," observed;

* Psalm cxlv. 15, 16.

† Job ix. 10.

“It is a very desirable entertainment to find occasions of pleasure and satisfaction in those objects and occurrences which we have all our lives, perhaps, overlooked, or beheld without their exciting any reflections that made us wiser or happier. The plain good man * does, as with a wand, show us the wonders and spectacles in all nature, and the particular capacities with which all living creatures are endowed for their several ways of life; how the organs of creatures are made according to the different paths in which they are to move, and provide for themselves and families; whether they are to creep, to leap, to swim, to fly, to walk; whether they are to inhabit the bowels of the earth, the coverts of the wood, the muddy or clear streams; to howl in forests, or converse in cities.” †

III. Another object which the writer has much at heart, is to prefer A PLEA FOR ANIMALS; so to enlist the feelings of the Reader on their behalf, as to prevent, as far as possible, all wanton acts of cruelty to the inferior creatures, and to promote that humanity towards them which is not only recommended by sound reason and

* The Rev. Wm. Derham, author of “Physico-Theology,” “Astro-Theology,” and several other valuable works; the object of which, like that of the productions of his admirable friend and contemporary, the Rev. John Ray, was “the promotion of the honour and fear of God, and the inculcating of true religion.” Derham was born at Stoulton, near Worcester, in the year 1657, and died at Upminster, Essex, in 1735.

† Guardian, No. 175, A.D. 1713.

interest, but is strictly enjoined in the sacred volume.*

He has refrained from forcing these reflections, trusting that they may often arise naturally, from the train of thought opened to the young reader by the study of this kind of history. For, indeed, a steadfast view of the wonders around us, on the earth, in the air, and in the waters, is apt not only to suggest arguments for the wisdom and goodness of God, but to produce a more thoughtful regard for those large classes of beings on the creation and preservation of which He has bestowed so much care and pains.

It is hoped, therefore, that this humble attempt may have some tendency to check that vice which is a reproach to any age or country,—**CRUELTY TO ANIMALS.**

I WOULD not enter on my list of friends
(Though grac'd with polish'd manners and fine sense,
Yet wanting sensibility), the man
Who needlessly sets foot upon a worm.

An inadvertent step may crush the snail
That crawls at evening in the public path ;
But he that hath humanity, forewarned,
Will step aside, and let the reptile live.

The creeping vermin, loathsome to the sight,
And charged, perhaps, with venom, that intrudes,
A visitor unwelcome, into scenes
Sacred to neatness and repose, th' alcove,

* Prov. xii. 10, &c.

The chamber, or refectory, may die:
A necessary act incurs no blame.
Not so when, held within their proper bounds,
And guiltless of offence, they range the air,
Or take their pastime in the spacious field.
There they are privileged; and he that hunts
Or harms them there, is guilty of a wrong,
Disturbs th' economy of nature's realm,
Who, when she form'd, designed them an abode.

The sum is this: If man's convenience, health,
Or safety, interfere, his rights and claims
Are paramount, and must extinguish theirs.
Else they are all—the meanest things that are—
As free to live, and to enjoy that life,
As God was free to form them at the first;
Who, in His sovereign wisdom, made them all.

You, therefore, who love mercy, teach your sons
To love it too. The spring-time of our years
Is soon dishonour'd and defiled; in most
By budding ills, that ask a prudent hand
To check them. But, alas! none sooner shoots,
If unrestrained, into luxuriant growth,
Than cruelty, most devilish of them all.

Mercy to him that shows it, is the rule
And righteous limitation of its act,
By which Heaven moves in pardoning guilty man;
And he that shows none—being ripe in years,
And conscious of the outrage he commits,—
Shall seek it and not find it in his turn.—COWPER.

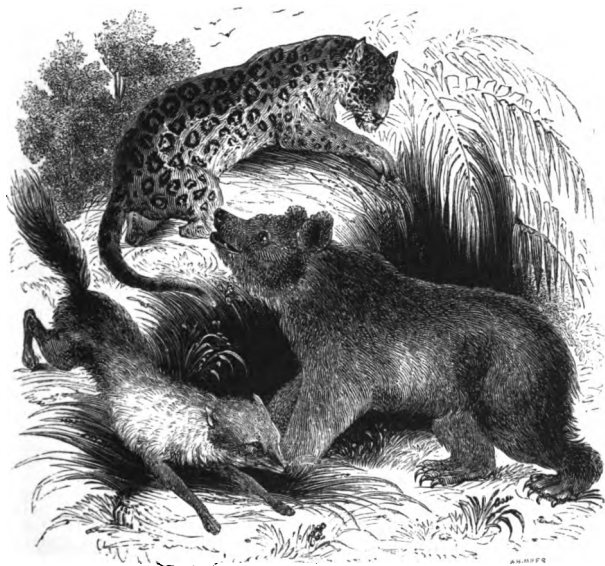
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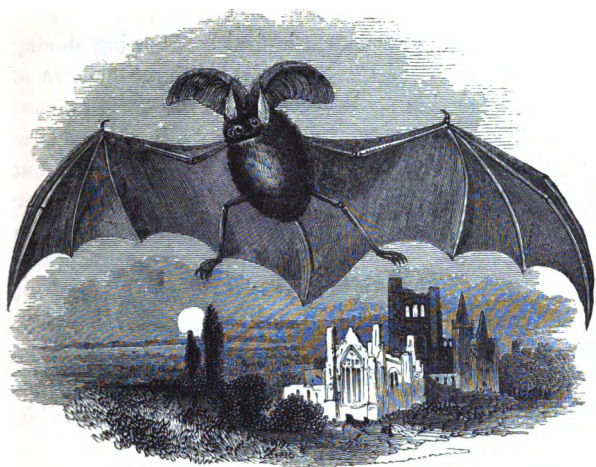
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QUADRUPEDS.



"We have here a large family of animals, in every particular respect curiously contrived, and made for that especial posture, place, food, and office or business which they obtain in the world. So that, if we consider their own particular happiness and good, or man's use and service, or if we view them throughout, and consider the parts wherein they agree with man or those especially wherein they differ, we shall find all to be so far from being things fortuitous, undesigned, or any way accidental, that everything is done for the best; all wisely contrived and incomparably fitted up, and every way worthy of the great Creator. And he that will shut his eyes, and not see God in these his works, even of the poor beasts of the earth, that will not say as Elihu hath it, 'Where is God my maker, who teacheth us more than the beasts of the earth, and maketh us wiser than the fowls of heaven?' (Job xxxv. 10, 11;) of such an one we may use the Psalmist's expression, 'That he is like the beasts that perish.' (Psalm xlix. 12.)"—*Physico-Theology*, by the Rev. W. Derham, F.R.S. 1712.



THE LONG-EARED BAT.

PLECOTUS AURITUS.

THERE are no fewer than twelve species of BATS known as natives of Great Britain ; and, if these curious creatures could be more easily caught, it is likely that some other kinds of the same family would be found to belong to this country. They are classed among British quadrupeds ; but are unlike any quadrupeds, inasmuch as they are formed for the purpose of very rapid flight. One of the old English names, however, for the Bat—*Flittermouse*, which signifies “ flittering, or flying mouse,” gives the idea of a quadruped.

The length of the head and body of the common Bat is rather less than two inches ; while the extent of its wings is upwards of eight inches. It has a quick and flitting motion, chasing through the air the gnats and

other insects upon which it feeds. Sleeping during the day in the most retired places, in the hollows of trees, or hanging by its claws from the bark, or concealing itself in ruined buildings, or in the roofs of ancient churches, it avoids the glare of daylight ; but when the shades of evening come on, and hunger tempts the timid animal from its lurking-place, it is brisk and lively. In winter these remarkable creatures are in a torpid state. They crowd together in vast numbers under the roofs of houses and churches, or in caverns, holding not only by the walls or ceilings of their dwelling, but by each other ; being collected so closely together that it would seem scarcely possible for so many to be contained in so small a space.

The Bat is spoken of in Scripture as one of the unclean* animals ; and the prophet Isaiah, in the chapter in which he “ prophesieth the coming of Christ’s kingdom,” says, “ In that day a man shall cast his idols of silver, and his idols of gold, which they made each one for himself to worship, to the moles and to the bats.”† These words may be applied at the present time to the diffusion of the light of the gospel among heathen nations.

* Deut. xiv. 18.

† Isaiah ii. 20.





THE HEDGE-HOG.

ERINACEUS EUROPEUS.

THIS animal is often found in hedges ; its head and face are shaped like a hog ; and hence it has received its name. Its length from the tip of its snout to the end of its tail is between nine and ten inches. Its body is covered above and at the sides with sharp prickles, about an inch long, which protect it from cruel dogs, and sometimes from more cruel boys. When this poor harmless creature finds danger to be near, it folds itself up into a kind of ball ; and then the enraged dog may fly at it, and bark, and roll it about with his paws ; but the armour which its Maker has given it generally keeps it from harm.

If pursued, it does not hesitate to drop from a height of twelve or fourteen feet, being protected by its elastic covering. It then unfolds itself, and runs off unhurt.

The food of the Hedge-Hog is various : it eats insects, worms, slugs, and snails ; and not only these, but frogs, toads, mice, and even snakes. Like most other wild animals, it spends the greatest part of the day in sleep, and hunts about very busily for its food during the night. It is easily tamed, and when kept in a house, will eat bread and milk out of the same plate with a dog or cat. It is sometimes kept in kitchens, for the purpose of ridding them of black beetles, which it eats very quickly, running about with a quick and shuffling pace from one to another, as soon as all is quiet at night. It is said to do mischief among game by eating the eggs ; and even to enter a hen-house, and turning the hen off her eggs, to devour them.

The Hedge-Hog retires in winter to its nest of moss and leaves, and, rolling itself up into a ball, passes the cold and dreary season in sleep. Its usual retreats are the hollow of a tree which is decayed at the roots ; or the hole of a rock, or some such hollowed dwelling.





THE MOLE.

TALPA EUROPÆA.

THE force of instinct is seen in no animal more clearly than in this little quadruped. Its means of happiness, and the works which it performs under great disadvantages, afford amazing proofs of the wisdom and kindness of the great Creator. Constant toil in the cold and dark earth is its lot ; which, however, when we consider its form and powers, is doubtless one source of its comfort and happiness. The strength of the shoulder-bones, the legs, and the paws, renders it expert in digging ; while its long muzzle is fitted not only for bringing its food to its mouth, but also for boring the earth. Its acute sense of smell is very useful in enabling it to discover its food, and avoid its enemies ; this sense, together with that of hearing,

making its deficiency as to sight of less consequence. So slight is the outward appearance of eyes, that the Mole has been said to be blind ; but this is not the case, as has been proved by experiment.

The dwelling which a Mole generally forms for itself under a hillock, is a curious structure, containing galleries and a chamber, the latter having a passage from it to the high road, for the purpose of safety. A full account of this remarkable fortress, accompanied with an engraving of it, and of the Mole's hunting-ground, appears in Professor Bell's work on British Quadrupeds. This animal's chief food is the earth-worm ; it is also fond of mice, birds, lizards, and frogs.

Mention is made of this animal in Holy Scripture. See Deut. xiv. 18 ; Isaiah ii. 20. See p. 2.





THE BADGER.

MELES TAXUS.

THIS animal is classed among British quadrupeds, it being still found in many parts of England and Scotland ; it is, however, nowhere very common, and in some places has become rare. It is a sleepy, heavy creature, living chiefly in holes in the earth, which have been dug by itself for its abode. In the evening, or during the darkness and silence of the night, it leaves its cell, and roams about for food. This consists of various roots, earth-nuts, beech-nuts, fruits, birds'-eggs, some of the smaller quadrupeds, frogs, and insects. Buffon states that it digs up wasps' nests for the sake of the honey.

The Badger possesses amazing strength of jaws, and has great muscular power ; while its strong leathery hide and rough long hair render it a dangerous enemy to engage with. It was in consequence of these qualities, that the cruel custom of Badger-baiting was formerly practised in country towns and villages. The poor animal was placed in a small tub, barrel, or kennel, and there baited by dogs of various kinds. This sport, as it was called, often proved as cruel to the dogs, as to the creature attacked by them. Happily this, and other brutal amusements, which tend to harden the hearts of the spectators, are now scarcely known in this country.

The practice alluded to, appears to have given rise to the verb, "To badger;" which means to worry and annoy. The above particulars are chiefly taken from "British Quadrupeds," by Professor Bell. He informs us, that he had, for some time, in his possession, a Badger, which soon became a great favourite, and showed great attachment to him and the household.

"It followed me like a dog, yelping and barking with a peculiar sharp cry, when he found himself shut out of the room in which I happened to be sitting. He was accustomed to come into the dining-room during dinner, of which he was generally permitted to partake ; and he always ate his morsels in a very orderly manner. He was in fact a gentle, affectionate, good-tempered fellow, and very cleanly withal." The usual length of the Badger, exclusive of the short tail, is two feet three inches.



THE BROWN BEAR.

URSUS ARCTOS.

THIS is a savage animal, and has great strength of body. It lives chiefly in forests, and feeds indiscriminately on animal and on vegetable substances, and sometimes on honey. Some creatures of this kind which have been brought to England have shown a preference for animal food. The Brown Bear was formerly a native of all parts of Europe; but this is not the case now. In the Alps he is still common, as well as in the woods of Bohemia, Poland, and Russia. He is covered with a thick coat, of long, soft, woolly hair, suited to the cold climate in which he is born.

It is said that Bears never attack man, unless they are provoked; but when enraged, they are terribly fierce. They then raise themselves upon their hind feet, and try to squeeze their enemy between their fore legs,

which are "exceedingly powerful. Though their form appears clumsy, they climb trees, and swim with ease and skill. When tamed, they are sometimes taught to dance; but great cruelties are inflicted in teaching them this practice.

The Bear is useful to man in many ways after its death. The people of Kamtschatka make many articles of clothing from its skin and fur; its flesh is good for food; its fat is used instead of oil; its shoulder-blades are formed into sickles for cutting grass, &c. Besides this kind of Bear, there is the American Black Bear, and the White, or Greenland Bear.

The Bear is frequently mentioned in Scripture as a formidable creature. David tells Saul, that "there came a lion and a bear, and took a lamb out of the flock"* belonging to his father Jesse. The ferocious quality of the she-bear, when robbed of her whelps, is alluded to.† But the most remarkable passage respecting this animal is found in the Second Book of Kings, in which we read, that when some little children mocked Elisha, a prophet of the Lord, and used ill language towards him, "there came forth two she-bears out of the wood, and tare forty and two children of them."‡

* 1 Sam. xvii. 34.

† 2 Sam. xvii. 8; Prov. xvii. 12.

‡ 2 Kings ii. 24.



THE WHITE BEAR.

URSUS MARITIMUS.

No greater proof can, perhaps, be found of the wisdom and design of the great Author of creation, in whom "we live, and move, and have our being,"* than is afforded by the evident adaptation of the form and character of animals to the element and climate in which they chiefly live, and to the peculiar circumstances in which they are placed. It is almost impossible not to notice this in the instance of the Polar Bear, and in the difference between it, and the species known as the Brown Bear, which is an inhabitant of the land.

The creature represented above appears well fitted

* Acts xvii. 28.

for a dwelling amidst the ice, and on the sea, in the intensely cold regions in which it passes its life. It is distinguished from its more inland relative by a nearer approach to the make of the otter, and other amphibious beasts of prey. This distinction can only be alluded to ; there being no room for a description of particulars in this short account, beyond the observation, that the Polar Bear has much longer feet, the soles being clothed with long hair, by which a firm footing on the ice is the better secured. Its manners and habits are marked with a still greater difference. Instead of seeking the covert of the forests, it prefers situations such as the unsheltered summit of an iceberg, which would be death to most other creatures : or it will sit, watching at the openings of the frozen deep, for seals and other animals, which rise for air ; and seizing them with its short black claws, will devour them with avidity. Dead whales, or portions of fish, are, however, its favourite prey. When such diet is not to be got, it subsists on vegetable food.

Of the vast numbers seen by our adventurous countrymen, in recent northern expeditions, the largest appears to have been one, the length of which is stated by Captain Lyon, at 8 feet $7\frac{1}{2}$ inches, and its weight at 1,600lbs. Some affecting anecdotes are recorded of the tender attachment of the female Bear to her young. She would, it is said, rather die than desert her helpless charge. What a reproof, or what lessons, do the ways of some animals convey to the unkind and thoughtless of our own race !



THE COMMON WEASEL.

MUSTELA VULGARIS.

THE length of the Common Weasel is rather more than eight inches. Its body is long, and feet short : the teeth and claws are extremely sharp. Its colour is reddish brown above, white beneath. It is a quick, watchful animal, and a great enemy to rats, mice, moles, and small birds. It sometimes makes free with partridges, young hares, rabbits, and chickens ; but it may be said to do more good than harm when the rats and mice, and other vermin which it kills, are taken into account. Indeed the blame thrown upon the Weasel for robberies in the farm-yard and hen-roost is often due to the Stoat, or Ermine Weasel, which is a bold and destructive little creature.

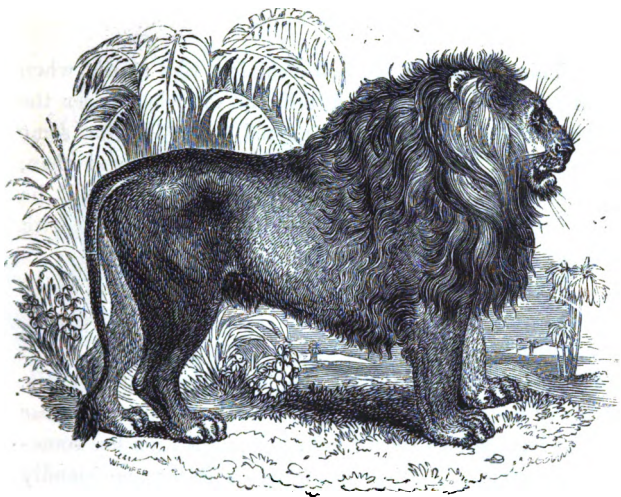
The Common Weasel is an expert climber, and surprises birds in the nest, sucks the eggs or carries off the young; but its chief objects of prey are the field-mouse and the mole. These it follows in their runs, finding its way into small holes, and among the close and tangled herbage of coppice, thickets, and hedge-rows. It hunts by scent, when it loses sight of the object of its pursuit, and will take the water and swim after it, if necessary. It is, however, itself, sometimes attacked by hawks. Mr. Bell* relates the following fact, which shows that violence and rapine, even when accompanied by superior strength, are not always a match for the ingenuity of an inferior enemy.

“At Bloxworth, in Dorsetshire, a kite was seen to pounce on some object on the ground, and rise with it in its talons. The kite, however, soon began to show signs of uneasiness, and was evidently endeavouring to force from it with its feet something which gave it pain, when suddenly both fell to the ground. The gentleman who had watched the circumstance, on drawing near, saw a Weasel, apparently unhurt, run away from the kite, which was quite dead, with a hole eaten through the skin under the wing, and the large blood-vessels of the part torn through.”

The Weasel will stoutly defend her young, against any enemy, and die rather than desert them. The Weasel is mentioned in the Scriptures as an unclean animal.†

* British Quadrupeds, 8vo. p. 145, 1837.

† Lev. xi. 29.



THE LION.

FELIS LEO.

THE strength and courage of the Lion are so great, that he has been called the king of the beasts. His height is from three to four feet ; his length from six feet to nine. His colour is tawny yellow. The mane is darker than the rest of the hair on his body. He is a native of the southern parts of Asia, but is more common in Africa, where he grows to the greatest size, and appears in all his strength and fierceness. He roams about in the forests seeking for prey, and sometimes utters a roar so loud, that it sounds like distant thunder. The prophet says : “ The Lion has roared, who will not fear ? ”*

* Amos iii. 8.

This animal is sly and skulking like a cat, when intending to make an attack: he crouches under the long grass, or behind a mound, watching for some beast that may come for meat or drink; and then, though the creature should be larger than himself, he springs upon it with a sudden bound, and seizes it with his sharp strong claws.

Lions sometimes live to a great age: one, which was called Pompey, died in London in 1760, aged seventy years.

Humane treatment will make these creatures gentle. Many instances are known of their attachment to those who have shown them kindness; and a Lion has sometimes permitted a little dog to live with him, on friendly terms, in the same cage.

Allusions to the Lion are very frequent in Holy Scripture. The strength, the boldness, and the destructive qualities of the animal are all noticed. See Psalm civ. 20; Prov. xxviii. 1, xxx. 30. St. Peter says: "Be sober, be vigilant; because your adversary the devil, as a roaring lion, walketh about, seeking whom he may devour; whom resist stedfast in the faith."*

* 1 Pet. v. 8, 9.





THE TIGER.

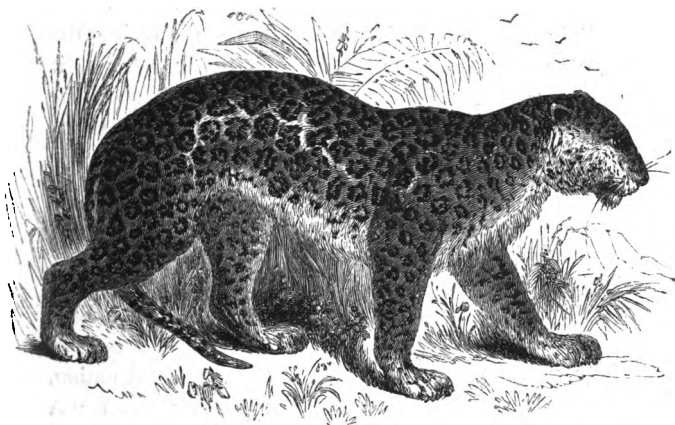
FELIS TIGRIS.

THE tribe to which the Tiger belongs, is noted for containing within its ranks some of the most ferocious of the animal creation. There is no four-footed creature more beautiful than the Tiger : but there is none more fierce or violent. Its coat has deep stripes of black, on a ground of orange-yellow : in form it resembles the cat, though it is much larger and stronger. The claws of all this tribe, such as, the Lion, Tiger, Leopard, Panther, Common Cat, &c. are retractile ; that is, the animal has the power of withdrawing them at pleasure into a hollow provided for that purpose in

its feet. The tongue of the Tiger is very rough, the surface being covered with small sharp points, by means of which it removes the skin from the animals on which the creature feeds.

The native country of the Tiger is Central and Southern Asia, and the Asiatic Islands ; in Sumatra, particularly, its ravages are dreadful, and it is often allowed to commit them with impunity. It seizes its prey when it is hungry ; and has sometimes taken off men, to tear to pieces, and to eat ; indeed, it is said to prefer human flesh, when it has once partaken of it, to any other food. The inhabitants of the villages of India are greatly alarmed when they hear that a Tiger is in the neighbourhood. In springing upon any animal it utters a dreadful roar, and its strength is such, that when it has killed a deer, or horse, or even a buffalo, it carries off its prize with ease to some neighbouring jungle. Hunting the Tiger is a favourite diversion of the great in the Eastern parts of the world.

Tigers have often been brought to England ; but it is very difficult to tame them. Sir Stamford Raffles had a young tortoiseshell Tiger, a native of Sumatra, which was quite gentle. He says, " while in a state of confinement it was remarkable for good temper and playfulness ; no domestic kitten could be more so."



THE LEOPARD.

FELIS LEOPARDUS.

THIS also is one of the animals of the cat kind. Its strength of muscle, and sharp teeth and claws, give it a great advantage over the creatures on whose flesh it feeds. These are, generally, antelopes, monkeys, and the smaller quadrupeds. No sooner is the victim within its reach, than, suddenly bursting forth from its lurking-place, or changing its slow, stealthy pace into a furious bound, it darts with the speed of lightning on its prey. It is a very expert climber, and pursues the monkeys among the branches of trees with such quickness and ease that they seldom escape. Those persons who have witnessed the savage eagerness with which the Leopard, when in a state of confinement, seizes upon the food

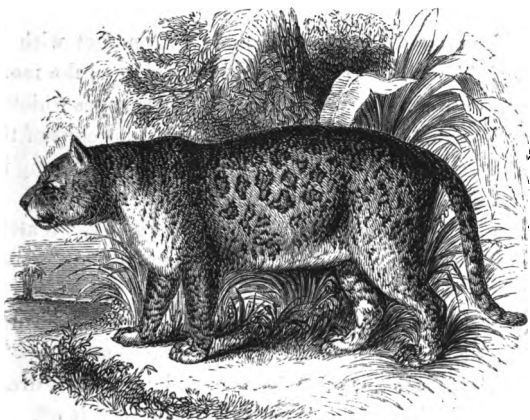
given it, may imagine the terrible nature of its attacks on living creatures in its wild state. On quitting the remains of the carcase, to which it never returns, it seeks out some lonely spot, where it may sleep off the effects of its meal ; nor does it wake till hunger excites it to another attack.

The Leopard is a native of Southern Asia, and of nearly the whole of Africa. It joins, with much outward beauty, a fierce and sly disposition, and habits extremely cruel. Both the appearance and habits of the Leopard are alluded to by the prophet Jeremiah, in very awful and striking language. In proclaiming God's judgments against a sinful nation, he says of his perverse and wicked countrymen, "A lion out of the forest shall slay them, and a wolf of the evenings shall spoil them. A Leopard shall watch over their cities ; every one that goeth out thence shall be torn in pieces."* And by way of showing the power of evil habits, he asks, "Can the Ethiopian change his skin, or the Leopard his spots ? then may ye also do good that are accustomed to do evil."† Yet a deliverance from the dominion of evil may be attained by means of Christ's religion ; and the happy effects of this power of the Holy Spirit on the hearts of men, which subdues their bad propensities, and changes their furiousness into peace, are represented by the prophet Isaiah in the following words : "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid ; and the calf, and the young lion, and the fatling together ; and a little child shall lead them."‡

* Jer. v. 6.

† Jer. xlii. 23.

‡ Isa. xi. 6.



THE JAGUAR.

FELIS ONCA.

MOST of the wild animals of the cat kind, such as the Lion, the Tiger, and the Leopard, are natives of Asia and Africa. But there is a class of the same tribe, which is met with in America, and which may be compared with the Tiger in size, strength, and fierceness, and with the Leopard in the beauty of its fur and the gracefulness of its movements.

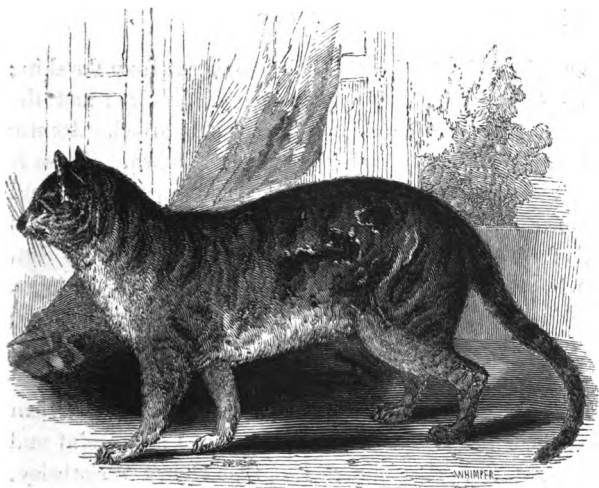
The Jaguar is a native of South America, and in the warmer parts of which country its cruel and savage habits, like those of the lion and tiger in other parts of the world, render it an object of terror and dislike. It is found almost all over the southern division of the

American continent, but is now seldom met with in the neighbourhood of towns, partly owing to the many enemies it makes in consequence of the ravages which it commits among the flocks, and partly on account of the great value of its skin ; both these causes occasioning its destruction.

The Jaguar is cowardly as well as violent. Watching secretly for its prey, and darting upon it unawares, it strikes the animal to the ground, and then bears it away to a place of safety, where it devours it at leisure. When driven by hunger it will attack man, but is alarmed at any show of resistance, and has a great dread of fires, which are sometimes lighted to keep it off. It is very expert at climbing trees, fastening its sharp claws into the bark as it ascends; and is an expert swimmer. Though very much like the Leopard in many respects, the Jaguar may be distinguished from that beautiful creature by its thicker and more clumsy body, and shorter limbs and tail. The spots on its sides and haunches are larger, and are generally marked with one or sometimes two black dots towards their centre. The Spaniards, and even the native Indians, sometimes hunt the Jaguar for sport.

It frequently measures from four to five feet from the nose to the root of the tail.





THE DOMESTIC CAT.

FELIS DOMESTICA.

THE effects of careful training in softening the temper and improving the manners may be observed in the Cat. The wild cat of this country has been called, from its fierce habits, the British Tiger; while the tame cat, which is represented above, is a gentle creature, and often becomes a favourite with each member of the family in which it lives. It is fond of warmth, and likes to lie close to the fire during the winter. It is fond of being noticed, and, when caressed by those who are kind to it, shows its pleasure by purring. Its sleep is very light, being disturbed by the slightest noise. If frightened, or attacked by dogs, it raises its back

and shows its teeth ; the hair stands out from the skin ; the tail appears suddenly to increase in size ; and the animal utters a harsh and disagreeable growl. Its use in destroying rats and mice is well known. These it seizes suddenly, having watched its opportunity, and concealed its design by slow and stealthy steps. It is so fond of fish, that, much as it dislikes to wet its feet, it has sometimes been known to seek this food in water. It is attached to the places to which it is accustomed, and has been known to travel some miles, and even cross rivers, to return to its own dwelling.

It has the character of loving places more than persons, but if well treated this animal is grateful and affectionate. Pennant relates, that Henry Wriothsley, Earl of Southampton, having been confined for some time in the Tower on a charge of high treason, in the reign of Queen Elizabeth, was surprised by a visit from his favourite cat, which reached him, as it was said, by descending the chimney of his apartment.

The Cat is a very kind mother, and shows much attention to its kittens. It has also been seen to nurse, with great tenderness, the young of other animals, whose nature is different from its own, such as hares and squirrels. The ancient Egyptians, "professing themselves to be wise, became fools,"* and paid great honours to the Cat. Many embalmed specimens of this animal, in a mummy state, are preserved in the British Museum.

* Rom. i. 22.



THE WOLF.

CANIS LUPUS.

THIS animal is of the dog tribe ; but it is generally larger, and more strong and muscular than the dog. The outward marks of difference, however, are not so strong as those of temper and habits. It has no good qualities, and has therefore been generally detested and feared. The only part about it of use and value is its skin. The poet Thomson has, in a few words, drawn a just picture of this savage creature :—

“ Cruel as death, and hungry as the grave ;
Burning for blood, bony, and gaunt, and grim ! ”

In countries where Wolves are numerous, whole droves flock down from the mountains, or out of the woods, and join in the work of havoc and mischief. They attack the sheepfold, enter the villages, and carry off sheep, lambs, hogs, calves, and even dogs. The

horse and the ox are frequently overpowered by their numbers, and man himself sometimes becomes their victim. They are most terrible in winter, when the cold is severe, the snow on the ground, and their usual food difficult to procure. They are found in most countries of the old and new continent. Captain Franklin met with some white wolves in his voyage to the Polar Seas. In Europe their numbers are much diminished, in consequence of the increase of population, and the extension of agriculture. They were once very formidable in England. King Edgar, who began to reign A.D. 959, took great delight in hunting Wolves, and encouraged his subjects to destroy them; and when it appeared that many of them had taken refuge in the woods and mountains of Wales, he changed a heavy tax which had been imposed on one of the Welsh princes into a tribute of 300 wolves' heads.

After this general description, it must be added, that, by care and kindness, Wolves have sometimes been so tamed, and altered in disposition, as to be rendered even affectionate to man. Mr. Bell, in his *History of British Quadrupeds*, under the description of the Dog, states an interesting case of a Wolf, which, on seeing him and others whom it knew, would come to the front of the cage to be fondled, and bring its young ones forward also, that they might share in the kindness shown towards it.

Reference to the Wolf is made in several passages of Holy Scripture. The first mention of it is in Gen. xlix. 27, in which the dying patriarch Jacob says of his youngest son, "Benjamin shall ravin as a Wolf," &c. a passage which the history of the tribe of Benjamin sufficiently explains. The reader will find other allusions to the same animal in Isaiah xi. 6; Jer. v. 6; Ezek. xxii. 27; Hab. i. 8; Zeph. iii. 3; Matt. x. 16; Luke x. 3; John x. 12; Acts xx. 29.



THE SHEPHERD'S DOG.

CANIS FAMILIARIS.

THE faithful Dog is not only the servant of man, but also his friend and companion. So many good qualities meet in the character of this animal, that volumes full of interesting accounts might be written on its habits and history ; and certainly none of the several species surpass the Shepherd's Dog in courage, fidelity, perseverance, and affection for its master.

Some writers have thought that this race is the original one from which all the other varieties of dogs have sprung. Whether Buffon and others be right in this opinion, we will not argue. Certainly the creature before us is of an excellent stock—perhaps it is of the most ancient. Its manners and habits betoken a great degree of intelligence ; and even the young dogs of this breed, before they have been trained, appear ready

to perform the services of their elders, or as the shepherds say, "A thorough-bred one will take to them naturally."

The services of the sheep-dog must have been noticed by most of our readers. On the moors and mountain-sides of Scotland and Wales, and on the widely-extended downs of Wiltshire, vast numbers of sheep are committed, with confidence, to the care of a single dog. In Scotland, particularly, where the flocks are liable to be lost in snow-wreaths, this watchful guardian is ever on the alert, and almost always successful in preserving its helpless charge from injury. It is interesting also, in the crowded streets of the city of London, and other parts of the metropolis, to observe the quickness with which the drover's dog catches its master's wishes from his looks, and then directs the flock accordingly, or brings the troublesome part of it into order.

The earliest allusion to the Dog in the Sacred Scriptures, occurs during the sojourn of the Israelites in Egypt. "Against any of the children of Israel shall not a dog move his tongue."* It is mentioned in the Mosaic law,† and in other parts both of the Old and New Testament, in a manner which seems to show the contempt and aversion in which this animal was held. For some remarkable instances of this, see 1 Sam. xvii. 43 ; 2 Kings viii. 13 ; Ps. xxii. 16, 20, lix. 6, 14 ; Prov. xxvi. 11, 17 ; Matt. vii. 6, xv. 26, 27 ; Phil. iii. 2 ; 2 Peter ii. 22 ; Rev. xxii. ii. 15. But it must be remembered that as dogs in the eastern parts of the world were not domesticated, their better qualities did not appear.

* Exod. xi. 7.

† Exod. xxii. 31.



THE NEWFOUNDLAND DOG.

CANIS FAMILIARIS, VAR.

THE NEWFOUNDLAND DOG is a general favourite. Though it has not the powers of scent which we find in the hound or pointer, nor the swiftness of the greyhound, it possesses many good and useful qualities, such as sagacity, patience, strength, and good temper. Its faithfulness also, in guarding its master's property, deserves to be remarked. Many a skulking thief has looked upon a fine Newfoundland Dog as one of his worst enemies. Fierce as this animal is at night, particularly when it hears strange noises about its owner's premises, it is by day, and when at liberty, gentle and affectionate, quietly bearing the insults of smaller dogs, and even of curs, and suffering itself to be teased by children, almost at their pleasure.

Its memory, of which some remarkable instances are recorded, is very retentive. Mr. Bell mentions a fine

Newfoundland Dog kept at an inn in Dorsetshire, which was accustomed every morning, as the clock struck eight, to take in his mouth a basket placed for the purpose, and containing some pence, and to carry it across the street to a baker's, who took out the money, and replaced it by a certain number of rolls. "With these, Neptune hastened back to the kitchen, and safely deposited his trust; but what was well worthy of remark, he never attempted to take the basket, or even to approach it on Sunday mornings.*

As a water-dog this animal affords valuable aid in swimming after the water-fowl that have been shot, and bringing them to land; but its noblest service is sometimes rendered in rescuing human beings from a watery grave. In Newfoundland, (the island from which it takes its name,) this dog is used for drawing loads of wood, and other articles, on sledges, over a wild and rugged country; a task which it performs, as it does everything it undertakes, with cheerful industry.

* British Quadrupeds, 1837, p. 244.





THE ESQUIMAUX DOG.

CANIS FAMILIARIS, VAR.

THE Esquimaux are a people inhabiting the remote parts of North America. They have no fixed abode, but rove from place to place. Their chief employment is hunting and fishing ; and they keep a great many large, well-trained dogs, which are used to drag their sledges over the hard snow in winter. The Esquimaux Dog is as valuable to these rude tribes as the rein-deer is to the Laplander. When drawing a sledge, the dogs have a simple harness of deer or seal-skin round the neck, with a single thong which passes over the back, and is attached to the sledge as a trace. A number of dogs are thus yoked to the sledge, which sometimes contains

several persons, who are thus drawn, at the rate of seven or eight miles an hour, over a large tract of ground,—perhaps sixty miles a day.

It appears, by an interesting account given by Sir E. Parry of his Second Voyage, that the most spirited and sagacious dog is selected as the leader in this remarkable team, and is generally placed from eighteen to twenty feet from the fore part of the sledge; the hindmost dog, which is the least efficient, being harnessed at about half that distance; so that, when ten or twelve are running together, several are nearly abreast of each other. The driver sits low on the front of the sledge, with his feet overhanging the snow on one side, and having in his hand a strong and flexible whip, which is a necessary article to keep the dogs properly to their work, though the actual application of it is seldom necessary; as the leader understands his master's voice, and turns to the right hand or to the left accordingly. If the driver wishes to stop the sledge, he calls out "Wo woa!" as our carters do. When he has succeeded in stopping his dogs, he stands up, with one leg before the foremost cross-piece of the sledge, and laying the whip gently over each dog's head, he makes them all lie down.

When we consider the uses to which the faithful Dog is applied, and the labours it willingly undergoes for man, we should not only treat it kindly, but be thankful to God, who has given it such various instincts, and so many valuable qualities for our benefit.



THE JACKAL.

CANIS AUREUS.

THIS mischievous and ill-favoured creature is a native of Asia and Africa. In the warmer regions of those parts of the world, it takes the place of the wolf, resembling that formidable animal both in its temper and appearance. Unlike the sullen solitary wolf, however, or the sneaking fox, the Jackal joins in company with his species in troops, which burrow together in the earth, hunt together, and unite for their mutual defence. These dangerous bands not only prey upon the smaller quadrupeds, and domestic poultry, but attack larger animals. They frequently follow in the train of more noble beasts, and make a meal off the remains of carcases which have been partly devoured by the lion, the tiger,

or the leopard. The Jackal, it has been thought, is in the habit of finding prey for his superiors in the desert or the forest; and he is thence sometimes called the lion's provider.

Though fierce and shy in a wild state, the Jackal, when taken, becomes mild and docile. In a description of the Tower Menagerie, in 1829, it is said of the Jackal; "The specimen in the Tower is remarkably quiet: it is a male, and has been a resident for upwards of three years."

The Jackal is supposed by some writers to be mentioned in the Old Testament under the name of the Fox, —an opinion in a great degree supported by a passage in the tenth and eleventh verses of the sixty-third Psalm: —"Those also that seek the hurt of my soul; they shall go under the earth, let them fall upon the edge of the sword, that they may be a portion for foxes." The Hebrew word translated, Fox, means an animal which burrows or makes holes in the earth. Now the fox does not prey upon dead bodies; but in those countries in which Jackals abound, it is found necessary to dig the graves very deep, and to cover them over with thorns to prevent the bodies from being dug up and devoured.





THE FOX.

VULPES VULGARIS.

THERE is no creature so frequently mentioned for its cunning as the Fox. Its sly and suspicious appearance agrees with its habits and manners. Crafty to a wonderful degree, it thrives by nightly theft; and since the period in which wolves abounded in this country, the Fox has been the worst pest among the young lambs and the poultry. Its plan generally is to form its burrow near a wood, in the neighbourhood of some village, or well-stocked farm: it then prowls abroad at night, and having scented its prey, moves forward, trailing its body along the ground. It leaps over walls, or creeps in underneath, and having reached the objects

of its attack, puts them all quickly and silently to death. These it hides under bushes or herbage, or carries off to its kennel. If other food fails it, it makes war against birds, rats, field-mice, serpents, lizards, toads, and moles, and in this respect is often found useful to the farmer. We must not omit to mention the tenderness with which the female Fox watches over her young and provides for their wants. This maternal feeling has often been found to prevail over the natural wiliness of her character.

When pressed by hunger, the Fox devours roots and insects, and even shell-fish. In France and Italy it does great mischief by feeding on grapes. Its taste for these luxuries has been noticed in the ancient and well-known fable of "The Fox and the Grapes,"—words which have since passed into a proverb. The various tribes of animals seem to be leagued against the Fox; and it is probable that its race would have been long ago extinguished in England, were it not required for the chase. It affords pastime to the huntsman: but we have no right to distress and torment any animal for our sport. Its fur is valuable.

We find this animal referred to in the New Testament in very affecting terms. Our Lord, in alluding to the privations which he underwent for man's sake, said, "Foxes have holes, and the birds of the air have nests; but the Son of Man hath not where to lay his head."* The craftiness and rapacity of Herod are reproved in the words, "Go ye, and tell that Fox," &c.†

* Matt. viii. 20.

† Luke xiii. 32.



THE HYÆNA.

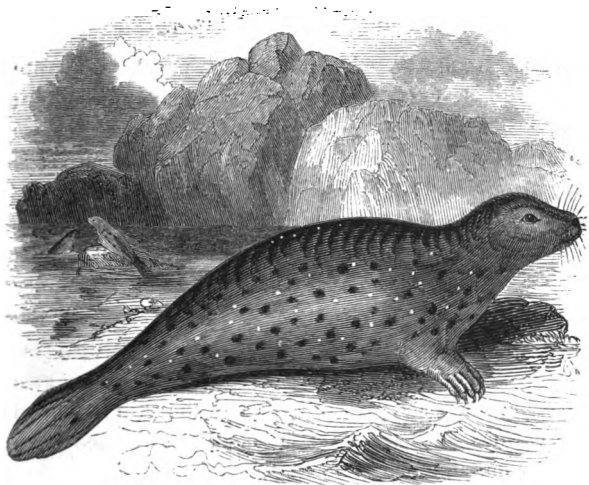
HYÆNA VULGARIS.

“THE keen Hyæna, fellest of the fell,” as this creature is styled by the poet Thomson, is generally of the size of a large dog. It is a gloomy, ill-looking animal; and its manners and habits correspond with its appearance. The striped Hyæna, represented in the engraving, inhabits Barbary, Egypt, Abyssinia, Nubia, Syria, and Persia. The spotted Hyæna (*Hyæna crocuta*) is chiefly found in South Africa. In their own countries, they live in caverns and rocky places; and prowl about in the night to feed on the remains of

dead animals, or on whatever living prey they can seize. When other food fails, they live on plants and the tender shoots of trees. Their cry is loud and disagreeable; it is like the moaning of a human voice; and some of the inhabitants of the Cape of Good Hope say that the animal thus sometimes deceives people, and succeeds in carrying away lambs, calves, and sheep from the folds. Its disposition and form are implied in the name by which it is sometimes known, the Tiger-wolf.

Comparatively few instances have occurred of the Hyæna being tamed. Mr. Pennant, however, reports that he saw one as tame as a dog; Buffon says that a tame Hyæna was shown at Paris; and Shaw speaks of having seen the natives take Hyænas by the ears, the creatures offering no other resistance than that of drawing back. Ill tempers and bad manners undoubtedly become worse by the harshness and neglect of superiors; and the mingled fear and disgust with which the Hyæna has always been viewed have probably tended to increase its ferocity.

Bruce, in his Travels in Abyssinia, states some curious facts regarding this creature. "The Hyæna," he says, "was the plague of our lives, the terror of our night walks, and the destruction of our mules and asses."



THE COMMON SEAL.

PHOCA VITULINA.

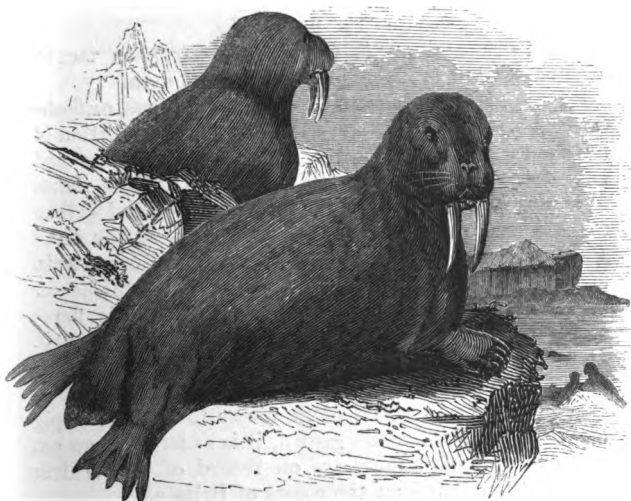
WRITERS on Natural History have remarked that the form of this animal's head indicates much intelligence ; and facts which have been recorded confirm the remark. M. Frederic Cuvier mentions a seal which readily obeyed a number of orders given to it by its master, to whom it appeared to be exceedingly attached. It would rise on its hinder feet, shoulder a stick as a musket, lie down on the right or left side, and perform several other feats. The docility of seals is no new discovery. Pliny,*

* This writer, who, besides other works, composed a Natural History in thirty-seven books, perished from the effects of an eruption of Vesuvius, which curiosity had led him to witness too near to the scene.

a Roman naturalist, who flourished A. D. 66, and wrote in Latin, says of them, " They receive discipline; they know people by their look and voice ; they answer to their names." They are stated by Low, in his *Fauna Orcadensis*, to have a large share of curiosity : for if people are passing near them in boats, they often come close to a boat and follow it ; and when they hear loud talking, they put on looks of wonder and inquiry. They are exceedingly valuable to the Greenlanders, who use their flesh for food, and their fat for oil. The skin not only serves for clothing, but as a covering for boats. In this country the skin is tanned for various purposes. It is sometimes dressed with the fur on, and made into caps.

They are classed among British quadrupeds, being found in the Orkney and Zetland isles. They also occasionally frequent the Tees, and commit havoc among the salmon.

Lord Teignmouth, in his *Sketches of the Highlands and Islands of Scotland*, says that these animals breed in immense quantities on a small rocky island called the Stacks of Skerries. In the centre of the island is a lake, on the banks of which the Seals are found basking in multitudes with their young. As soon as they are alarmed by the prospect of their enemies, they congregate, form a body, and scuttle away across the land to the sea. The men divide and charge the retreating column on both flanks with large sticks. A blow on the nose of the Seal instantly destroys the animal. Many of them are taken in nets.



THE WALRUS.

· *TRICHECUS ROSMARUS.*

THIS extraordinary animal, which is sometimes called the Morse, the Sea-cow, or the Sea-horse, is found, like the seal, only in the colder regions. It frequently visits the shore, or the ice, and remains there for days together, until driven back to the sea, either by fear or hunger. At the first approach of danger, it makes for the element in which it lives, and where it moves with greater comfort and freedom than on dry land. Its timid disposition, or perhaps its love of society, induces it to associate in herds. These are found by the hunters to the number of forty, eighty, or one hundred together. They are often killed on land at Spitzbergen, and other northern coasts, with spears, for the sake of their oil, and the ivory of their tusks.

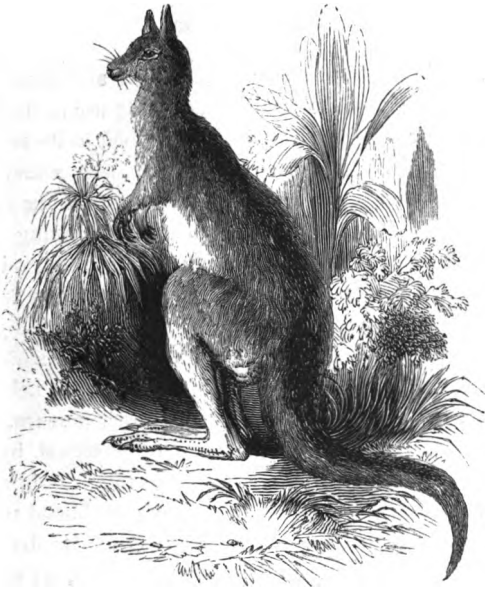
The capture of the Walrus on land is less frequent than formerly, partly, perhaps, from the reduction in

its numbers, and partly from its having been taught greater caution by its ingenious pursuer, man.

It is ranked with the seals among carnivorous, or flesh-eating animals ; and fish, probably, forms a portion of its food ; but Professor Bell notices the form and structure of its jaw-teeth, which “are calculated rather to bruise the half-pulpy mass of marine vegetables, than to hold and pierce the slippery hardness of the fish’s scaly cuirass.” The canine teeth, directed downwards, are extremely long and powerful, and are valuable for the creature’s defence. When attacked, it is fierce and violent, especially if its young ones are with it. It will then rise and endeavour to sink or upset the boat by means of its tusks.

The Walrus is, at its birth, about the size of a pig of a year old ; when full grown, it is as large as an ox. Two or three instances are on record of the Walrus having been found on the coasts of Britain.





THE KANGAROO.

MACROPUS MAJOR.

THIS interesting and good-tempered animal inhabits New South Wales, and some of the islands between that continent and South-eastern Asia, and has as yet been discovered in no other part of the globe. It is fond of wandering about among the grass, and feeds on green herbage, roots, and hay. The greatest peculiarity in the form of the Kangaroo, consists in the extreme disproportion of its limbs ; the front legs being short, and

weak, while the hind ones are very long and muscular. It goes entirely on its hind legs, making use of its fore-feet only for digging, or bringing its food to its mouth. It is very timid at the sight of men, who sometimes hunt it with dogs ; it flees from them by amazing leaps, of upwards of twenty feet in length, springing over bushes seven or eight feet high, or going progressively from rock to rock. It carries its tail at right angles with its body when it is moving ; and when it alights, often looks back. The tail of the Kangaroo, which is very large, and remarkably thick at its base, helps to support the animal when in a nearly erect posture. In this position it is supported, as if on a tripod, by the joint action of the hind legs and the tail. It is quiet and harmless, until attacked ; but when obliged to use the means which Providence has given for its defence, it sometimes not only inflicts blows on dogs, so severe as to oblige them to desist from pursuing it, but with the short claws of its hind feet severely lacerates the bodies of its assailants.

Its flesh is said, by the colonists who have eaten it, to be good and wholesome ; but it would not, probably, be used for food unless there were a scarcity of provisions. Many of our readers may have seen specimens in collections in this country. There were two in the Royal Park at Windsor, which were afterwards in the Tower, and which appeared to be but little affected by the difference between this climate and that of their native country.



THE SQUIRREL.

SCIURUS VULGARIS.

THIS is a very pretty, active, and amusing little creature. Its movements in its own native woods are rapid and lively. Dwelling chiefly on trees, it leaps from bough to bough with astonishing swiftness. When kept in a house it is gentle and playful. It lives upon nuts, acorns, beechmast, the bark of young trees, leaf-buds, and tender shoots. In eating nuts, it gnaws quickly through the hard shell, and then carefully removes every morsel of the dry brown skin from the kernel, before it puts it into its mouth. When at its meals it generally sits upon its haunches, holding its

food in its front paws, which serve for hands. It teaches man wisdom in laying up sufficient food for "a rainy day," and for winter consumption. These it stores away in holes of trees in the neighbourhood of its own retreat. Its nest is skilfully formed of moss, leaves, and fibres, curiously woven together; and this creature is very careful of its young ones.

One of Withers's *emblems*, illustrative of patience and perseverance, represents a squirrel at its meal, the rain, meanwhile, pouring down heavily on the little animal. Beneath the print are the following lines:—

"The little Squirrel hath no other food
Than that which nature's thrifty hand provides,
And in purveying up and down the wood,
She many cold wet storms for that abides.

"She lies not heartless in her mossy dray,
Nor feareth to adventure through the rain,
But skippeth out and bears it as she may,
Until the season waxeth calm again."

In northern regions the Squirrel becomes of a grey colour, and even in this country the fur is of a paler hue at the colder seasons of the year. Its head and body generally measure between eight and nine inches, and its tail upwards of six inches.





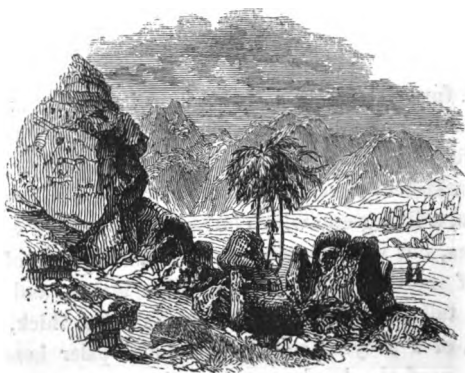
THE CHINCHILLA.

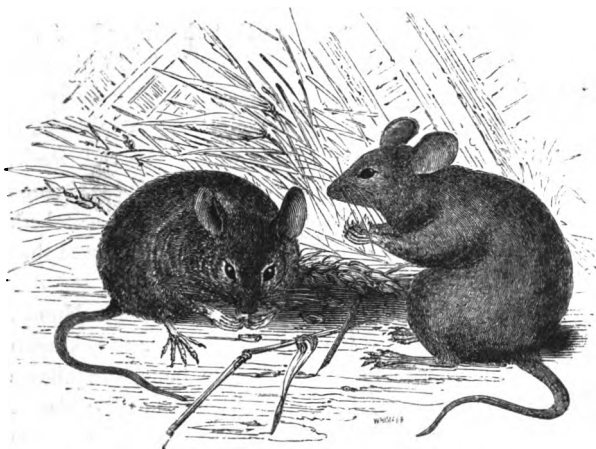
CHINCHILLA.

THE fur of the Chinchilla has long been used among us ; but the animal itself, which supplies this soft and beautiful fur, has been little known until lately, when Captain Beechey presented to the Zoological Society, in London, a living one which he had brought from South America, but which is since dead. The length of the body of the Chinchilla is about nine inches, and that of the tail nearly five. The fur is long, thick, and woolly, of a greyish colour above, and paler beneath. The form of the head resembles the rabbit ; the eyes are full, large, and black ; and the ears are broad, rounded at the tips, and nearly as long as the head.

It usually sits upon its haunches, and is able to raise itself up and stand on its hind feet. When feeding it grasps its food, like a squirrel, with its front paws, and puts it into its mouth. It feeds on grain of different kinds, and on roots. Its temper is generally mild and affectionate ; but if not inclined to play, it bites the hand which would fondle it. It is very cleanly in its habits.

These creatures are natives of Peru and Chili, and live in burrows under ground. They are caught in great numbers by boys with dogs, and are then sold to traders, who take them to Santiago and Valparaiso, from whence they are exported.





THE MOUSE.

MUS MUSCULUS.

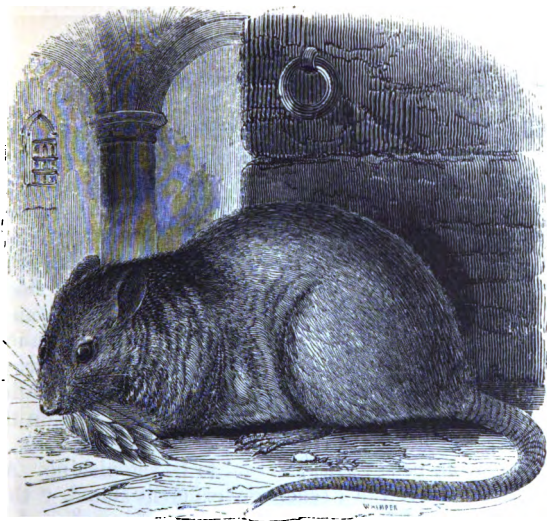
A NATURALIST of the present day, speaking of the Mouse, justly styles it “ a pretty but annoying little pest.” It is found in almost every place in which man has fixed his dwelling. We have the town Mouse, and the country Mouse. It wanders about our home on land, and takes its passage with us across the sea to new colonies, there to increase its kind. Yet though so near to man, it always keeps as much as possible out of his sight, as if conscious that it is a thief. Living upon the same diet that nourishes mankind, a few families of Mice often make sad havoc, in a single night, of food intended for their betters.

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But it is not in our houses that the inroads of the Mouse are chiefly felt. The farmer feels, to his cost, the mischief which it does to his grain. In a barn it creeps among the corn, eating its way at the poor man's expense, and even revels within the rick itself, till the ferret or weasel, trained for the purpose, brings the felon to daylight, when it is quickly dispatched. We know, too, that the cat is its active enemy, and that its greediness easily leads it into a mouse-trap.

There are several varieties of the common Mouse. One of the most common is the *Albino*, or well-known white Mouse, which runs about the table, and allows itself to be taken by the hand, without showing alarm. This, like the pretty little harvest Mouse, may be kept in confinement for a long time in good health, by allowing it the use of a little tread-wheel, on which it will often exercise itself, apparently to its amusement and satisfaction. Gilbert White, in his pleasing description of the harvest Mouse, says that two of them in a scale just weighed down one copper halfpenny, which is about the third of an ounce avoirdupoise; "so that," he adds, "I suppose they are the smallest quadrupeds in this island."*

* P. 48, Edition published by the Society for Promoting Christian Knowledge in 1842.



THE COMMON RAT.

MUS DECUMANUS.

THE common brown Rat is now so generally met with wherever man dwells, that its original country cannot be ascertained, although there is reason to believe that it came from a warmer country than our own. It was probably brought hither by means of merchant vessels from some southern or south-eastern country; Pennant imagines from the East Indies. In Paris it made its appearance about the middle of the eighteenth century, and in England some years earlier. It is sometimes, by a strange mistake, called the Norway Rat, as if it had been an original native of that country; whereas, when the name was first applied to it, this creature was not known even to exist in Norway. Its habits are mischievous and offensive, causing serious injury to the property of the farmer, the merchant, the tradesman, and the mariner; and infesting equally the dwellings of the rich and poor. We find, to our cost, that it will eat almost anything it can get; and after eating its fill,

will carry off provisions to its retreat. The secrecy of its place of abode, between the walls of houses, and under the flooring of cellars, and its ingenuity in avoiding detection, render it a difficult enemy to dislodge; particularly as young ones are produced, from time to time, in large numbers. Mr. Bell says, "It digs with great facility and vigour, making its way beneath the floors of our houses, and often excavating the foundations of a dwelling to a dangerous extent. There are instances of Rats fatally undermining solid masonwork, or burrowing through dams which had for ages served to confine the waters of rivers and canals." Their ravages on the carcasses of horses, in the horse slaughter-house at Montfauçon, near Paris, are said to be astonishing. An official report to the French government stated, "that the carcasses of horses killed in the course of a day, (and these sometimes amounted to thirty-five,) are found the next morning picked to the bone."*

There are some good traits in this animal which are called forth by kindness, and it has frequently been tamed. In a large cage, containing, cats, mice, rabbits, guinea-pigs, starlings, an owl, two or three hawks, and several small birds, five fine brown rats may be seen nestling for warmth under a handsome brindled cat, which watches and accommodates them as if she were their mother. This interesting collection is called "The happy family."

The Rev. Mr. Ferryman, of Iping, Sussex, saw a number of black Rats, (a different species from the above,) migrating from one place to another. Among them, or rather in the rear, was "an old blind Rat, which held a piece of stick at one end in its mouth, while another Rat had hold of the other end of it, and thus conducted his blind companion." This anecdote is told by Mr. Jesse, from the information of Mr. Ferryman.

* See Jesse's Gleanings, Second Series.



THE JERBOA.

DIPUS GERBOA.

THIS pretty little creature is a native of Egypt, Barbary, Syria, the eastern Deserts of Siberia, and some parts of Tartary. It is about eight inches in length, is very active, and in moving, generally uses its hind legs only. On the approach of danger it takes high leaps, and by its great swiftness often escapes powerful enemies. It is a lively, but timid animal, feeds entirely on vegetables, and burrows in the ground like a rabbit. It is fond of warmth, making its bed of the

finest and most delicate herbage ; and, wrapping itself up close in hay at the approach of cold weather, sleeps during the greater part of the winter. The flesh is reckoned a delicacy by the Arabs.

Some writers suppose that this is the "mouse" of Holy Scripture, in which it is spoken of as unclean, * and forbidden as an article of food. When the lords of the Philistines desired to make a trespass-offering, as an acknowledgment that they had offended the God of Israel by bringing His ark from its proper place, their diviners enjoined the offering of such images as represented the evils from which they were delivered. Among these were "five golden mice,"—"images of your mice that mar the land."† "This," says Bishop Patrick, "was also a custom among the ancient heathens, to consecrate to their gods such monuments of their deliverance as represented the evils from which they were freed."

* Lev. xi. 29 ; see also Isaiah lxvi. 17.

† 1 Sam. vi. 4, 5.





THE BEAVER.

CASTOR FIBER.

THIS is a very useful animal, as it furnishes a valuable kind of fur ; and its habits and manners show so much industry and method, that it is well worthy of notice. Beavers take up their abode on the banks of rivers or ponds, and build their own dwellings with pieces of timber, which they have gnawed off the branches of trees, and with clay, which they have dived for, mixing with it such sticks and stones as they can find. This task they perform with their front paws and their mouth, working always by night, until a comfortable house is prepared. In summer they feed either on the bark of

trees, or on the green herbage, and the berries which grow in the neighbourhood; but in winter their food is almost entirely confined to the bark, of which they lay in a large stock before the frost begins. Willow, poplar, and birch, are their favourite kinds.

They are very affectionate animals, and seem to feel deeply the loss of a companion. They are taken in large numbers in North America, for the sake of their fur, vast quantities of which are procured from Canada, and other places, by the Hudson's Bay Company.

This animal is about two feet long, and nearly a foot high. Its body is thick, and it is furnished with a broad flat tail, covered with scales, which serves not only as a rudder but as a trowel; for as soon as the sagacious creature has fixed any part of its building, it turns round and gives it a smart blow with the tail.

Mr. Broderip kept in his house a beaver, which always showed its ruling passion for building, on being let out of its cage. Brushes, baskets, books, boots, sticks, cloths, dried turf, &c., were employed for its materials. "As the work grew high, *Binny* supported himself on his tail, which propped him up admirably; and he would often, after laying on one of his building materials, sit up over against his work, appearing to consider it, or as the country people say, to 'judge it.' Bread, and bread and milk, and sugar, formed the principal part of *Binny's* food; but he was very fond of succulent fruits and roots."



THE PORCUPINE.

HYSTRIX CRISTATA.

THIS animal is not covered with hair, but chiefly with hollow tubes, like the quills of feathers. These quills are from ten to fourteen inches long, sharp pointed, and thickest in the middle. They seem to be given to the wearer for its own defence. They lie nearly flat upon the body, and incline backward ; but when irritated or alarmed, the creature can raise them suddenly, by certain muscles, in such a manner as to secure it from the strongest and most violent foes. The quills on the tail make a loud rustling noise whenever the animal shakes

them. It never begins a quarrel; but when it is put upon its guard, not even the lion ventures to attack it. Its thus "bristling up" at the slightest appearance of danger, has led to its being called "the *fretful* porcupine."

It is a native of many parts of Asia, and of Africa generally; it is also found wild in Italy and Sicily; and there are other species known. The Indians hunt it for its quills and flesh. It sleeps almost all the day in its lonely burrow, which it quits only in the evening in search of food. This consists chiefly of roots, buds, and fruits. When tamed, it is a dull but peaceable animal, showing scarcely any signs of intelligence, and but little disposition to become familiar.

Bingley, in his "Animal Biography," says that the late Sir Ashton Lever had a Porcupine which he frequently turned out on the grass behind his house to play with a tame hunting leopard, and a large Newfoundland dog. As soon as they were let loose, the leopard and dog began to pursue the Porcupine, which always at first endeavoured to escape by flight, but, on finding this ineffectual, he would thrust his head into a corner, making a snorting noise, and raising his spines. With these his pursuers pricked their noses till they quarrelled between themselves, and thus gave him an opportunity to escape.



THE GUINEA-PIG.

CAVIA APEREA.

THIS little creature, the length of whose head and body is generally between ten and eleven inches, is more properly called, *the Restless Cavy*: indeed, it does not appear that it is mentioned by any naturalist as being a native of Guinea. The country from which it originally came, is the southern part of South America. It is now very common as a domesticated British quadruped. Its pretty red and black marks, on the

pure white fur with which it is covered, added to its quiet and inoffensive habits, seem to make it attractive, especially to children. Its qualities, however, when we examine them, are not valuable. Scarcely ever at rest, it has no intelligence, and cannot be taught ; while its tameness is the effect of stupidity rather than good temper. Its flesh is never eaten in this country, and its fur is so harsh as to be unfit for use.

Some persons keep Guinea-Pigs for the purpose of getting rid of rats, which they suppose, though without sufficient proofs, to have a particular dislike to the animal before us, and to quit in disgust the cellar, or stable, in which it is kept.

In the wilds of South America, Guinea-Pigs are taken in considerable numbers by the natives, for the flesh, which they think excellent ; and the animal has neither speed nor sagacity to escape the attacks of beasts or birds of prey.

In the gardens of the Zoological Society, Regent's Park, London, a portion of ground is fenced off, called *The Guinea Pig Enclosure*, in which there are large numbers of these animals.





THE HARE.

LEPUS TIMIDUS.

THIS well-known animal is found throughout Europe. It has no weapons of defence ; but it is exceedingly timid, and has a quickness of sight and hearing, as well as a swiftness of foot, which are calculated to protect it from its enemies. Its chief enemy is man, who is tempted by these very qualities to obtain a poor triumph over the harmless creature, by destroying it for the purposes of sport. “ Whatever excuses may be found for the pursuit of the Fox, on the score of necessity, as ridding the country of a noxious animal—an excuse, however, which can scarcely be made by those who forbid its destruction by any other means—no such

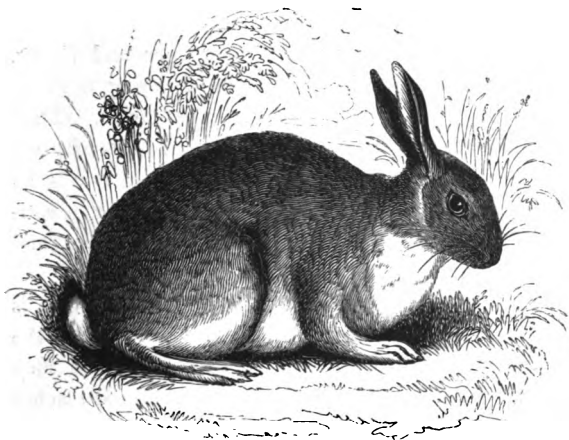
excuse can be made for *this* sport ; whilst the degree of danger and difficulty is scarcely sufficient to invest it with enough of excitement to conceal its character of cowardice and cruelty. It is true that coursing is in a degree less cruel, as the poor trembler's agony is comparatively short-lived ; but it appears to me that mercy and humanity can scarcely consist with the ardent love of either variety of a sport, the whole interest of which depends on the intense exertion to which a helpless and defenceless creature can be driven by the agonies of fear and desperation." *

The Hare feeds on vegetables only, and sometimes does great injury in fields, gardens, and young plantations. Having made its *form*, or bed, it remains on it during the day, leaving it at night to seek its food, and constantly returning, unless caught or killed ; hence, it is said, proverbially, that the wounded Hare *goes home* to die. Its colour helps to conceal it amidst the brown dusky vegetation of heaths and woods ; and by the same admirable wisdom of the Creator, those species of the hare which inhabit the snowy regions of the North become wholly white in winter.

It is not difficult to tame hares ; and in a domestic state they are very amusing. The poet Cowper gives an interesting account of three tame hares, which he called, Puss, Tiny, and Bess, and which he kept long under his care. The Hare was reckoned an unclean animal among the Jews.†

* Bell's British Quadrupeds.

† Deut. xiv. 7.



THE RABBIT.

LEPUS CUNICULUS.

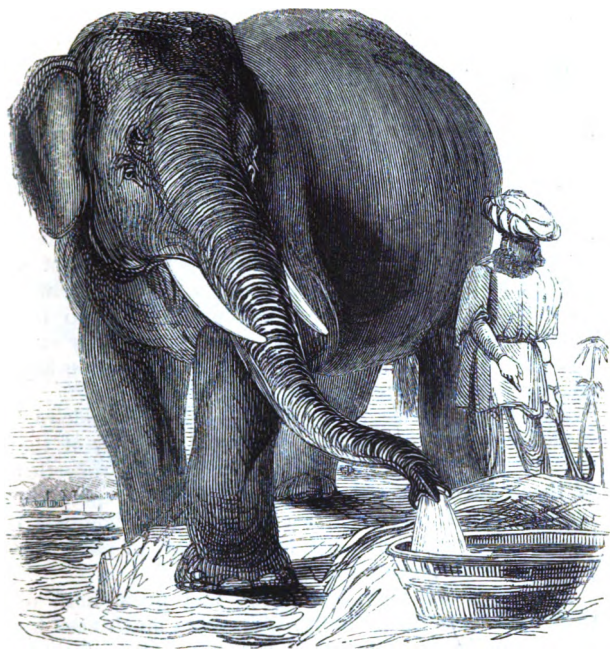
THIS animal, though like the Hare in some respects, differs from it in size, and in its habits and manner of living. It finds a shelter in deep holes of its own digging. These are called burrows, which it inhabits during the day, and quits about twilight to feed. A large piece of uneven ground, called a rabbit-warren, may sometimes be seen, everywhere pierced with burrows, containing innumerable families of rabbits. When these creatures confine themselves to sandy tracts, and uncultivated portions of land, they may be safely allowed to increase in numbers ; but they are great enemies of the farmer and the gardener, when

permitted to find their way among corn and plants. The damage they do in plantations of young trees, as well as in corn-fields, is often very extensive. They are, however, food for several beasts and birds of prey, as well as for man; besides which, their fur is an important article of commerce. Great havoc is constantly made among them by the gun, the trap, and other means.

The creature called in the Bible, the Coney, is supposed to have been in many respects like the Rabbit. "The conies are but a feeble folk, yet they make their houses in the rocks."* By this God teaches us, that though persons may not have great strength of body, they may generally be able to do something for themselves; and thus we may learn, from the industrious habits of some animals, to labour truly to get our own living, and to do our duty in that state of life unto which it shall please God to call us.

* Prov. xxx. 26.





THE ELEPHANT.

ELEPHAS INDICUS.

THE Elephant is found in Asia and Africa, and possesses many qualities which render it useful to man in those parts of the world. It is strong, active, and persevering ; gentle in disposition and manners ; and so sagacious that it is capable of being trained to various kinds of service. The height of an Elephant is generally nine or ten feet, though often greater. The creature can root up trees, and can also pick up a sixpence or a needle with its trunk or *proboscis*. When it wants to drink, it fills its trunk with water, and thus empties it into its mouth.

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The wonderful facility with which this animal applies its trunk to all the purposes of a hand, has greatly attracted the attention of naturalists. "Not only," says Buffon, "does the Elephant possess the power of moving his trunk, but he can bend it, shorten it, lengthen it, bend it back, and turn it in every direction. The extremity of this trunk is furnished with a rim, lengthened in front into the form of a finger; and it is by this means he is able to perform all that we do with our fingers; he can pick up the smallest piece of money, gather flowers one by one, untie knots, and open and shut doors, turning the key and forcing back the bolt."

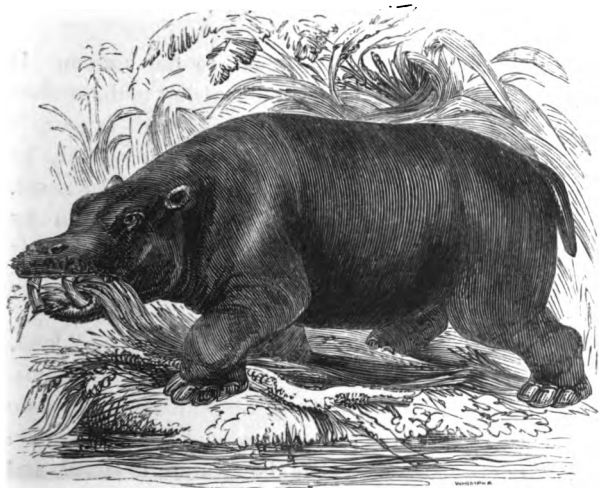
Archdeacon Paley, in his "Natural Theology," speaking of the curious structure and anatomy of the trunk, and its various powers, says, "These properties of the same organ, taken together, exhibit a specimen not only of design, (which is tested by the advantage,) but of consummate art, and, as I may say, of elaborate preparation in accomplishing that design."

Elephants are very intelligent, and grow fond of those who treat them kindly. They are much used by princes in India in war and hunting. One of these animals can carry a small building like a tower, with ten or twelve men in it. The driver rides upon its neck, and gives it the word of command. If the "half-reasoning Elephant" arrives at ground that appears insecure, it will not venture on till it has tapped and tried it with its trunk.

It feeds on hay and vegetables, and is fond of sweet-meats, and the smell of flowers.

The ships of Tarshish brought every three years, for king Solomon, ivory, or, as it is called in the margin of the Bible, Elephants' teeth.* Some writers think that the description of the animal called in the book of Job,† Behemoth, refers to the Elephant.

* 1 Kings x. 22. 2 Chron. ix. 21. † Job xl. from verse 15 to the end.



THE HIPPOPOTAMUS.

HIPPOPOTAMUS AMPHIBIUS.

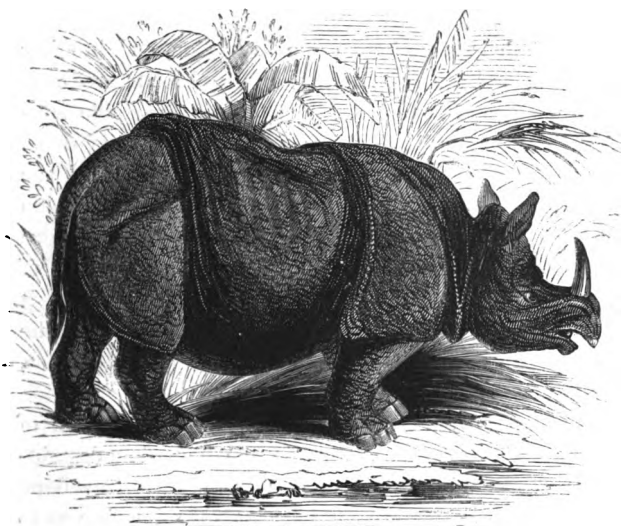
THE word Hippopotamus is derived from the Greek, and means a River-horse. The huge, unwieldy creature before us is amphibious ; that is, it can live both in water and on land. It measures upwards of ten feet in length, and its girth is often nearly nine feet. Its body is very large, fat, and round ; its legs short and thick ; its head large ; its mouth extremely wide ; its teeth of great strength and size ; its eyes and ears small.

The Hippopotamus is found about the muddy banks of rivers in Africa, and, like the hog, is fond of wallowing in the mud. If pursued on land, it takes to

the water, plunges in, and sinks to the bottom. It cannot continue long there without rising to the surface to breathe ; but this, when threatened with danger, it does very carefully, so that the snout can scarcely be seen above water. If wounded, it will rise and attack boats or canoes furiously, and often sink them by biting pieces out of their sides. During the night it leaves the rivers, to feed on sugar-canes, rushes, millet, or rice.

The caution of this animal is so great, when on land, that it is difficult to catch it by snares or other means. One mode is to watch it at night behind a bush, close to its path, and, as it passes, to wound it in the tendon of the knee-joint, by which the creature is lamed, and rendered incapable of escaping from the hunters. It is also sometimes taken in pitfalls which have been covered with reeds.

“ We speak of the colossal strength of this formidable animal ; but what is it when compared with the relative powers of some of the insect tribes ? Well may we adore the beneficence of the Creator in not having endowed the larger animals with muscular force proportionable to that of the inferior orders. A cock-chafer is six times stronger, according to its size, than the most powerful horse ; and if the Elephant, as Linnæus observes, were strong in proportion to the stag-beetle, he could uproot the firmest oaks, and level mountains.”—*Roberts's Wild Animals*.



THE RHINOCEROS.

RHINOCEROS INDICUS.

THE Rhinoceros is a very large beast, and has an awkward form : its usual height is about eight feet, its length ten or eleven feet. When left to itself, is quiet and inoffensive, but if attacked, is very savage. It has great strength and swiftness. The wounds which it receives are said to heal soon. The skin is dark-coloured, and is so hard and tough, that bullets of lead, when fired at it, have been flattened against it ; but an iron ball, or one formed of tin and lead, will penetrate the skin.

Different species of the Rhinoceros are found in India, Africa, and in the islands of Java and Sumatra.

The flesh is sometimes eaten in Ceylon, and in other places ; and the skin, flesh, hoofs, and teeth, are used in medicines. Its food consists of vegetable substances, the leaves, branches, and even trunks of trees. The latter it tears into threads by the help of the remarkable horn which grows on its nose, and from which the name of the creature is derived. This horn is entirely different in its formation and mode of growth, from that of any other known creature ; it being made up of a bundle of fibres having the appearance of bristles lying side by side, glued together, and attached to the skin.

There is reason to believe that the Unicorn of heraldry had its foundation in the imperfect descriptions given of the Rhinoceros by some early travellers, and we may therefore consider the animal before us to be alluded to in Scripture. The first mention of it, in reference to its great strength, is found in the answer of Balaam when solicited by Balak to curse Israel. "He hath as it were the strength of an unicorn."*

The Lion and the Unicorn were first assumed by King James the First, in 1603, as the supporters of the royal arms of England. Before that time there were many changes in the choice of supporters. Queen Elizabeth's were a Lion and a Dragon. The reason of the Unicorn having taken the place of the dragon was, that James' supporters, as king of Scotland, were two unicorns.

A fine and large Rhinoceros is now exhibited in the gardens of the Zoological Society.

* Numb. xxiii. 22 ; xxiv. 8. See also Deut. xxxiii. 17 Job xxxix. 9—12 ; Psalm xcii. 10.



THE WILD BOAR.

SUS SCROFA.

THE Wild Boar still infests many parts of Europe, and was formerly to be found in the woods and forests of Britain. Among the severe forest-laws in force in the reign of William the First, there was one by which any found guilty of killing the stag, the roe-buck, or the Wild Boar, should have their eyes put out ! and sometimes the penalty appears to have been a painful death.

This savage and dangerous animal is met with in Asia ; it is a favourite object of the chase in India, and is also said to be an inhabitant of Syria, and the northern parts of Africa. It feeds on vegetables, fruit, and different kinds of grain ; though, when stimulated by hunger, it does not reject the flesh of animals. The male lives alone and apart, amidst the thickest retreats of the forest, lying concealed during the day, and roaming about in the evening in search of food. The

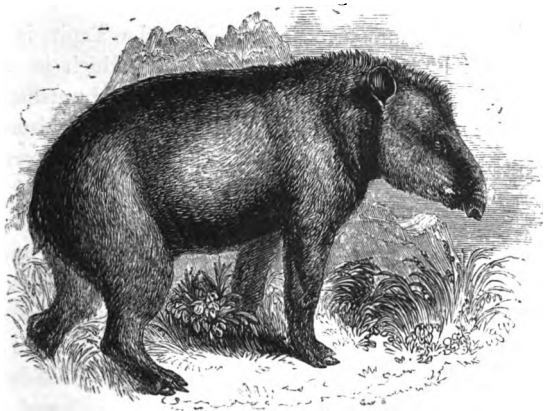
females, on the contrary, unite in large herds with their young, for the purpose of mutual defence. When attacked, the older and stronger ones form a line against the enemy, the younger and weaker portion of the herd being placed in the rear ; and it is found that the females, though generally quiet and harmless, defend their young with the most determined courage.

The chase of the Wild Boar has for centuries been much followed in Germany, and is considered the more exciting in consequence of its dangerous character. This kind of hunting has furnished a glowing but painful subject for the pencil of the artist. The long, curved, and sharp tusks of the animal, wielded by the strong muscles of his brawny neck, are capable of tearing open the body of his enemy, the horse, at a single blow. When once at bay, the Boar becomes furious. He turns indiscriminately on his pursuers ; and the hunter himself is in no little jeopardy, if he be on foot, or his horse be disabled.

The common hog, or pig, one of the most useful animals reared in Great Britain and Ireland, derives its origin from the savage and powerful creature represented in the engraving. The ordinary length of the head and body of a Wild Boar of four years old, is three feet, the head being nearly a foot in length.

The Wild Boar is one of the quadrupeds mentioned in Holy Scripture. The Psalmist, lamenting the miseries of the Church, which, under a beautiful figure, he compares to a goodly vine, rifled and trodden under foot, complains—"The Wild Boar out of the wood doth root it up ; and the wild beasts of the field devour it."*

* Psalm lxxx. 13.



THE AMERICAN TAPIR.

TAPIRUS AMERICANUS.

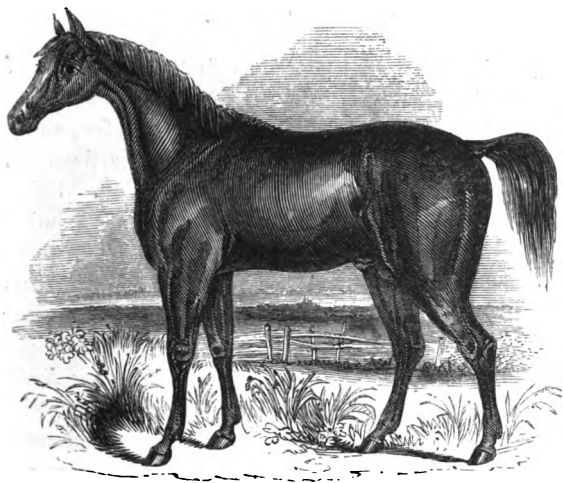
THIS remarkable animal is chiefly found in South America, and belongs to the *pachydermatous* tribe, which is so called from the extreme thickness of the skin of the animals which compose it. The hog is of this order. The skin of the Tapir is so thick and tough, that Sonnini, the traveller, says he has frequently fired at one crossing a river with her young, without causing her to turn aside from her direction, although he could see the impression made by the ball on her hide. With this coat of mail the Tapir can clear for itself a path through the thickest woods, and snap in two a cord strong enough to stop a bull in its course.

The most common mode of taking the Tapir, is to attract it by an imitation of its voice, which is like a whistle, and so to bring it close to the huntsman's shot. The American Indians sometimes use poisoned arrows, and occasionally dogs, for securing this prey. The flesh, though coarse and dry, is much esteemed by the natives.

Its most common food consists of wild fruits, buds, shoots, and young plants ; when pressed by hunger it will eat almost any thing, such as rags, dirt, and even pieces of wood, and small stones. One of them is stated to have gnawed in pieces a silver snuff-box, which was left in its way, and to have swallowed its contents.

The Tapir is about as large as a calf of six months old. Its body is heavy. Its ears are small. The nose and upper lip are extended into a moveable proboscis, at the extremity of which are the nostrils.

It is not a mischievous animal, but quiet and good-tempered, unless assailed by huntsmen and their dogs, when it defends itself with great courage. Sonnini speaks of tame ones strolling at liberty through the streets of Cayenne, visiting the neighbouring woods, returning in the evening to the houses where they are fed, and showing attachment to such persons as are kind to them.



THE RACE-HORSE.

EQUUS CABALLUS.

THE Horse has been the servant of man from very early times, and is reasonably supposed to be of Eastern origin. In England, horses appear to have been always highly valued. Julius Cæsar, who landed in Kent fifty-five years before Christ, records their fine stature and good training. The native British stock was improved by the importation of fine specimens from Spain, and more recently from Arabia, and other eastern countries.

The best race-horses, more especially, will be found to have sprung from an Arabian origin ; and it was the fondness of King James the First for the sport of

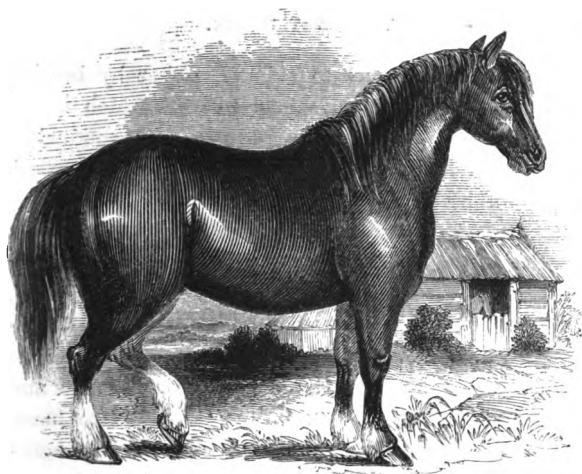
horse-racing, that occasioned the first introduction of the pure Arabian blood into this country.

The whole riches of an Arab of the desert frequently consist of his beautiful horse. He does not tie it up, but lets it feed at large round his habitation. Being treated with kindness, the creature will come running the moment it hears his master's voice, and will lie down in the midst of his children without hurting them. If the rider happens to fall, his horse will stand still instantly, and not stir till he has mounted again.

Bingley relates a pleasing anecdote of a poor Arab, who possessed nothing but a favourite courser, with which he had at last, after much reluctance, consented to part, for a handsome sum of money, for the use of King Louis the Fourteenth. Having been sent for by the French Consul at Säid, the poor man arrived with the animal, and dismounted. Looking first at the gold, and then stedfastly at his favourite, he heaved a deep sigh, and exclaimed, "To whom am I going to yield thee up? To those who will tie thee close, and beat thee! Return with me, my beauty, my jewel! and rejoice the hearts of my children." Then, springing upon her back, he was out of sight in an instant.

Many allusions to the horse are met with in Holy Scripture. These will be noticed under the next head. There is a fine description of the war-horse in the book of Job. *

* Job xxxix. 19—26.



THE CART HORSE.

EQUUS CABALLUS.

THE Horse, under proper care and control, is a most active and useful servant to man. When well-treated, this powerful creature will shrink from no reasonable share of labour, and will obey the voice, and often the mere look of its master. Many of our readers must have observed these qualities in the CART HORSE, and noticed the ease with which an intelligent driver may direct his loaded waggon or dray through crowded streets, and narrow lanes, or back it down a gateway, in which there appears to be scarcely room ; all this being done without the application of the whip to the willing and sturdy animal.

The welfare of the Horse is, in a great degree, connected with our own ; and it is therefore surprising that it should be so ill-used as it sometimes is. Those

persons who are cruel to animals, either by beating them angrily, or putting them to work which is too heavy for them, seem to forget that such conduct is reprov'd in Scripture : "A righteous man regardeth the life of his beast." *

It must be remembered, that, as the Horse possesses amazing strength, and has no reason to guide it, we ought not to trust our lives and limbs to its disposal, without a sufficient check on its movements. Its dangerous nature, when uncontrolled, is adverted to by the Psalmist, who draws from it a lesson on violence and stubbornness among men : "Be ye not like to horse and mule, which have no understanding ; whose mouths must be held in with bit and bridle, lest they fall upon thee."†

It is thought that the Horse was first brought under the service of man by the Egyptians. The earliest mention of it is made in the book of Genesis, as belonging to the time of Joseph. When the famishing inhabitants of Egypt had spent their money in the purchase of corn, "they brought their cattle to Joseph ; and Joseph gave them bread in exchange for horses, and the flocks, &c."‡ Jacob, in his dying address to his sons, says, "Dan shall be a serpent by the way, an adder in the path, that biteth the horse's heels, so that his rider shall fall backward."§ On the removal of the body of Jacob by his son Joseph from Egypt to Canaan for burial, it is recorded : "There went up with him both chariots and horsemen."||

* Prov. xii. 10.

† Psalm xxxii. 10.

‡ Gen. xlvii. 17.

§ Gen. xlix. 17.

|| Gen. l. 9.



THE ZEBRA.

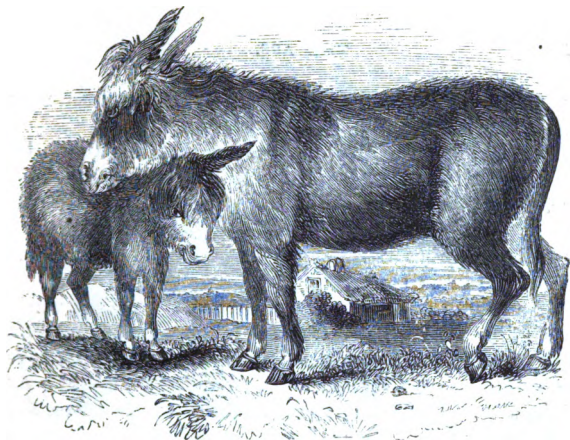
EQUUS ZEBRA.

THESE elegant animals are chiefly found in the southern parts of Africa. Herds of them are sometimes seen grazing on the vast plains which lie north of the Cape of Good Hope. They are, however, so quick-sighted, wild, and fleet, that it is very difficult to take any of them alive. Attempts have been made to tame the Zebra, so as to make it useful as a beast of draught or burden like other creatures of the horse tribe. Such attempts have been hitherto vain ; but kind and gentle treatment, if long continued, may perhaps yet effect that which other methods have been unable to accomplish.

There was a female Zebra in the Tower menagerie, in 1814, which would carry her keeper a little distance, but would then become restive, and kick violently. When angry, she plunged, and tried to seize him with her teeth ; and she was always savage towards strangers. A very fine male Zebra perished in the flames at the Lyceum in the Strand, some years ago, when that theatre was burnt down. He was more docile than most of his species, and once allowed himself to be ridden quietly from the Strand to Pimlico. He had been born and reared in Portugal, his parents having been partly tamed.

In the pasture ground of the Zoological Society's Gardens, may be seen some fine Zebras, including a species first distinguished by Mr. Burchell during his travels in South Africa, and called the Zebra of the plains.

Mr. E. T. Bennett describes one of this species, which was kept in the Tower in 1826, as beautifully marked. "The ground colour of its whole body is white, interrupted by a regular series of broad black stripes, extending from the back across the sides, with narrower and fainter ones intervening between each. This specimen, which has now been about two years in the Menagerie, will suffer a boy to ride her about the yard, and is frequently allowed to run loose through the Tower, with a man by her side, whom she does not attempt to quit, except to run to the Canteen, where she is occasionally indulged with a glass of ale, of which she is particularly fond."



THE ASS.

EQUUS ASINUS.

THE Ass is a patient, gentle animal, which does a great deal of useful work, and injures nobody. It is contented with the coarsest grass or hay, or thistles by the road side, and labours well, though kept to a small allowance of food. It treads very carefully, and may safely be trusted in descending high hills.

It is often treated very ill by cruel and cowardly persons: indeed, cruelty and cowardice are often found to go together. The nature of the Ass is not so lively as that of the horse; but allowance ought to be made for this; and if a creature be stubborn, unkindness and violence will make it more obstinate still. The Scripture says: "A righteous man regardeth the life of his beast;"* and if we consult the pages of the Old Testament, we shall observe how strictly the Mosaic law enjoined care and kindness towards this and other

* Prov. xii. 10.

beasts of labour, "that thine ox and thine ass may rest,"* &c.

The Wild Ass of the East, mentioned by Job,† by the Psalmist,‡ and by the prophet Jeremiah,§ is a very fine, swift-footed, and bold creature. Bishop Heber, in his "Journey through the Upper Provinces of India," describes "a noble Wild Ass from Cutch," which he saw in a paddock near Bombay.

The Ass of our own country is useful in many ways. The milk is sometimes considered beneficial for weak stomachs, and in cases of consumption. The skin is made into leaves for pocket-books, and the tougher part of the skin is made into shagreen, for spectacle-cases, &c.

As this animal is well known, it only remains to give a short anecdote told of one, by the Rev. W. Bingley, in his *Animal Biography*.

"An old man who for many years sold vegetables in London, employed an ass to convey his baskets from door to door. He was very kind in feeding it frequently, and gave the poor industrious creature handfuls of hay, or pieces of bread or greens, by way of refreshment or reward. The old man had no need of a stick to beat it; and seldom did he even lift his hand against it, to drive it on. This kind treatment was noticed, and he was asked whether his beast was not apt to be stubborn, 'Ah! Master,' he replied, 'IT IS OF NO USE TO BE CRUEL: and as for stubbornness, I can't complain, for he is ready to do any thing, or go any where. I bred him myself. He is sometimes playful and skittish: and once ran away from me; and while more than fifty people were after him, laughing and trying to stop him, he suddenly turned back of himself, and never stopped till he ran his head kindly into my bosom.'"

* Exod. xxiii. † Job xxxix. 5—8. ‡ Psalm civ. 11. § Jer. ii. 24; xiv. 6.



THE ELK.

CERVUS ALCES.

THE ELK, or MOOSE DEER, is a native of Canada and Nova Scotia. It is also found in Lapland, Norway, Sweden, Russia, Siberia, and part of Tartary. It is unable to exist in temperate regions, and thrives in a cold climate. The fossil remains of a very large kind of Elk have been found in England and Ireland; but the largest of this species was met with, in a fossil state, in the Isle of Man.

The Elk often grows to the size of a large horse. It is more awkwardly formed than the rest of the Deer kind; the head being large, the neck short, the shoulders high, and the front legs long. The weight of the horns is enormous. This animal feeds on the moss and plants which it finds on the sides of rocks, and eats the twigs, buds, and small branches of trees.

In consequence of the shortness of its neck, and the length of its legs, it cannot browse on the herbage at its feet. Sir Charles Bell, in his *Treatise on the Hand*, after dwelling on the wonderful provision of the proboscis, or trunk, of the elephant, for enabling that animal to take its food, says of the Elk :—

“ A remarkable proof how unable this animal is to feed in the common way, was afforded by an accident which befel a fine specimen in the Zoological Gardens. His food having been unintentionally scattered on the ground, he was obliged, in order to reach it, to extend his fore-legs laterally : in this position his foot slipped, he dislocated his shoulder, and died of the accident.”

The Elk is generally inoffensive : but it is hunted in winter in Canada, and, when wounded, becomes fierce and dangerous. It is said, that, on being first discovered by the huntsmen, the creature falls down, for a few moments, as if, through fear, it had lost the power of motion. Some persons have thought that, on such occasions, it was seized with epilepsy ; and, on this account, the hoof was formerly used for epileptic fits ! This notion, however, no longer prevails.

The flesh of the Elk is considered light and nourishing food. Mr. Gosse, in his “ Canadian Naturalist,” says it is like beef in appearance, but more juicy and tender. He adds :—

“ These animals are frequently taken in the Indian-stream territory, a kind of neutral ground on the boundary of this province and New Hampshire, claimed by both governments. Paths are worn by their feet, leading to the brook whither they resort to drink ; and they are caught by traps laid in these paths. I am told that they are almost always dead when found ; as they soon kick and worry themselves to death.”

The skin of the Elk is strong, and makes excellent leather.



THE REIN-DEER.

CERVUS TARANDUS.

THIS animal is of great use to the inhabitants of Lapland, which is a country covered with snow for about three quarters of the year. What a blessing the Rein-Deer must be in those cold and dreary regions! Its flesh supplies the people with good food: they make cheese of its milk, warm clothing of its skin, bow-strings and threads of its sinews. Its antlers, or horns, are made into glue, and its bones into spoons and other articles.

But this is not all ; the Laplanders travel from place to place in sledges with the help of the Rein-Deer. A couple of these swift creatures yoked together will

carry their master 112 English miles in a day. In the language of Lapland, "they will change his horizon three times in the twenty-four hours;" that is, they are able to traverse three times the length they can see at starting. The sledge is formed like a boat: the traveller is tied into it, and is conveyed rapidly along by night as well as by day, being directed in his course by observing the stars, and the quarter from which the wind blows. Accidents are of rare occurrence.

The food of the animal, consisting of mosses, and the buds of evergreens, and other arctic plants, is generally obtained with little trouble.

GOD is very kind in giving food to the Rein-Deer, when, owing to the deep and hard snow, there seems to be nothing for them to eat. HE has furnished them with strong horns, with which they dig into the earth, and there find *lichen*, or moss, for food. If this food should be so deep under the snow, that they cannot reach it, they are not left to starve, as they can then generally get some of the moss which grows on the Lapland pine-trees.

The provision made by the Almighty for the sustenance of animals is often noticed in Scripture:—

"The eyes of all wait upon thee; and thou givest them their meat in due season. Thou openest thine hand, and satisfiest the desire of every living thing." *
"He giveth to the beast his food, and to the young ravens which cry." †

* Psalm cxlv. 15, 16.

† Psalm cxlvii. 9.



THE DEER.

CERVUS ELAPHUS.

THERE are three species of Deer, natives of this country;—the Stag, or Red Deer, pictured above; the Fallow Deer; and the Roe Deer; each a beautiful creature of its kind. The first is fond of woods and forests; the second, of wide plains; the third, of hills and mountains. The Stag is the largest of the present British species.

In England these animals are now seldom met with in a wild state; but in many parts of Scotland they still

exist in considerable numbers; and a Stag-hunt is, even in the present day, the occasion of much excitement and profuse hospitality. Formerly the gathering of the clans for this object was often made subservient to political purposes, or the indulgence of private animosity. Thus the old song of Chevy Chase describes a bloody battle, and dreadful scene of death, occasioned by the mutual feuds which reigned in the families of an English and Scottish nobleman, Percy and Douglas.

" To drive the deer with hound and horn
Earl Percy took his way !
The child may rue that is unborn
The hunting of that day !"

From very early periods of the history of England, the Stag has been the favourite object of the chase; and the most oppressive laws were passed, in former days, to preserve this animal for a cruel kind of sport. In the feudal times there was a severer punishment for destroying or taking a Deer, than for killing a man !

A few Deer are still to be found in the New Forest, and in other parts of the kingdom. White, in his "Natural History of Selborne," informs us that these Deer were plentiful in Woolmer Forest, Hampshire, in the reign of Queen Anne, who was treated with a sight of the whole herd, amounting to about five hundred head, brought by the keepers along the vale, before her majesty.

The royal Stags of England are chiefly kept in a small park at Windsor, for the purpose of being hunted by the Queen's Stag-hounds.

On the 4th of December, 1843, a fine Scotch Deer, belonging to the Royal collection, was uncartered at Maidenhead, and after a run of two hours and three quarters, over upwards of thirty miles of country, a portion of which was on the line of the Great Western Railway, was taken in the tap-room of a public-house at Reading, whither the poor creature had fled for refuge.



THE ROEBUCK.

CERVUS CAPREOLUS.

THE Roe buck, which is the smallest of the Deer kind, was formerly an inhabitant of Wales, and of the northern parts of England ; but it is now very rare in these places, and is chiefly found in Scotland. It is fond of mountainous districts, while the Fallow-Deer delights in wooded plains, and the Stag in extensive forests. It differs also from them in its domestic habits, being kind and constant to its mate, as its chosen companion for life: "so that," as Professor Bell observes, "the Turtle-Dove has no longer the exclusive claim to be considered as the honoured emblem of the virtue of conjugal constancy."

These animals are not often met with in large numbers, but are seen two or three together ; they are extremely cautious, and make use of their fine sense of smelling, as well as hearing, to warn them of an enemy. They are very quick at discovering the approach of man ; and one way by which their pursuer deceives them, is to hold some lighted peat in the hand, as the animals are accustomed to the smell, and are less upon their guard in proceeding towards the spot to which it leads them.

Their cry has a sound between that of the bleating of a sheep and a bark ; at night this cry may be heard at a great distance. They are very active, and bound without much seeming effort across a space of nearly twenty feet. When closely hunted, or suddenly startled, their speed is wonderfully great, and the action of their body and limbs beautiful. They feed on the buds and small shoots of forest trees, and thus commit no small injury in the woods.

The usual method of killing them is to send hounds into the woods, and men to beat the covers, the tracks or passes being guarded by the shooters. Another mode sometimes adopted is to walk quietly through their haunts in the early dawn, and, if possible, to get within shot of them, which, however, is no easy matter.

There is a fine specimen of a Persian Roebuck in the gardens of the Zoological Society. This animal was presented to the institution by Sir T. D. Acland, Bart.



THE GIRAFFE.

CAMELOPARDALIS GIRAFFA.

THIS is a graceful, mild, and gentle creature. The Romans gave it the name of *Camelopardalis*, from its similarity to the Camel in form, and to the Panther in spots. Pliny, and other ancient writers, briefly noticed it; but Heliodorus* thus described it in his *Æthiopica*:—"The ambassador of the people of

* A native of Emessa in Phœnicia, and bishop of Tricca in Thessaly, who lived near the end of the fourth century. In his youth he wrote a romance in Greek, called "The *Æthiopics*," in Ten Books.

Abyssinia brought presents to Hydaspes. Among other things was an animal of a strange and wonderful kind, about the size of a camel, marked with florid spots: the hinder parts were low, like those of a lion; the shoulders, front feet, and breast, disproportionably elevated; the neck was small, and lengthened out from the body, like a swan; the head in form resembled a camel's, but was twice as large as a Lybian ostrich's; and it rolled its eyes, which had a film over them, in a strange manner."

When standing with its head and neck erect, the Giraffe measures sixteen or eighteen feet in height; and this is its usual position, except when grazing. It feeds delicately, and chiefly on the leaves of trees, which it can easily reach; but in browsing from the ground, it is obliged to stretch apart its front legs. In preparing to lie down, it kneels like a camel. When pursued, it trots so fast that even a good horse is scarcely able to overtake it; and it has an advantage in being able to keep on its course for a long time without taking rest.

It is found on the plains of Africa, and is sometimes attacked by lions and other beasts of prey; and, though it might at first sight appear defenceless, we are told that "by its kicks it frequently wearies, discourages, and distances even the lion." The use of the little tufted horns with which its head is adorned is not known. The flesh of the young Giraffe is said to be good food. The Hottentots hunt the Giraffe, and are fond of its marrow.

Some interesting specimens of this rare and beautiful animal are preserved in the gardens of the Zoological Society. The original couple were procured with great difficulty in Arabia, in 1836, by M. Thibaut, who says, "In its disposition the Giraffe is very gentle. It is extremely fond of society. I have seen some of them shed tears when it no longer saw its companion, or the persons who were in the habit of attending it."



THE LLAMA.

AUCHENIA GLAMA.

THE Llama is generally about four feet and a half high, and nearly six feet in length. Its usual weight is about 300 pounds. It is a native of the Cordilleras of the Andes, and is still more frequently found in Peru and Chili.

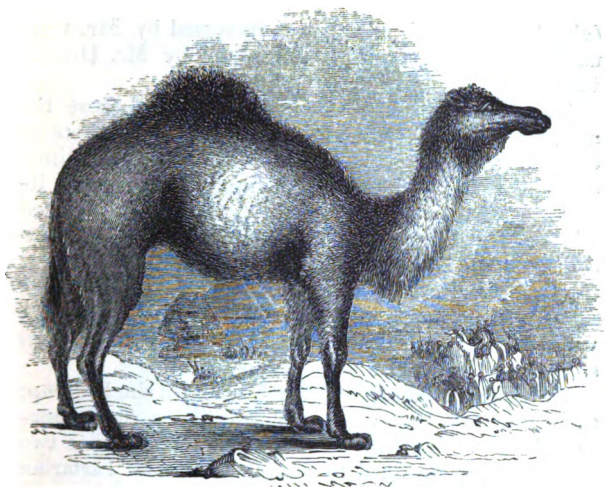
Llamas live together in herds of one hundred or two hundred each, and feed on a peculiar kind of grass or reed that covers the mountains on the sides of which they dwell. While they can procure green herbage, they are never known to drink. They appear to possess a capability similar to that of the Camel, of resisting thirst, and of providing against its effects.

Mr. Bennett, in his description of a specimen which was recently kept in the Zoological Society's Gardens,

advert to other points of likeness between the Llama and the Camel, and calls attention not only to the peculiar structure of the stomach, but to the plan on which the feet of both these animals are formed.

Llamas are mild and tractable, and are used in many parts of South America to carry burdens. They were formerly employed in the ploughing of land. Like the Camel, they lie down to be loaded ; and when they are wearied with much labour, no blows will induce them to proceed. Although very gentle if well-used, the Llama easily takes offence at any insult, and then it has a bad habit of spitting at the person with whom it is angry. This seems to be the only method it has of showing its resentment ; and when overloaded or fatigued, or ill-treated by its driver, the poor creature falls down and pours out against him a quantity of this fluid, of which the Indians in general are much afraid, as they assert that it is of a poisonous nature, either burning the skin, or causing dangerous eruptions.

This animal is slow and careful in moving when it is under control, or when loaded with baggage ; but among its own native hills or valleys it has a swifter pace than an excellent horse. When it observes any one approaching, it utters a kind of neigh, and the herd, taking the alarm, run off with great speed. They outrun all the dogs, so that the natives have scarcely any mode of killing them but with guns



THE ARABIAN CAMEL, OR DROMEDARY.

CAMELUS DROMEDARIUS.

THE Camel is one of the most useful creatures with which we are acquainted. God, in his wisdom, has created it in a manner suitable to the countries in which it is found, and to the purposes for which its help is required by man. The Arabs call it "the ship of the desert;" for it enables them to pass safely over the vast and pathless wastes of Arabia and Northern Africa in a very wonderful manner. These travellers are often many days in the desert without finding a spring of water. If, then, the patient Camel had not some unseen means of support, it would perish under its heavy load. The average pace of a heavily laden Camel is about two and a half miles an hour. The distance from Aleppo to Bussora, across the Great Desert,

(about 720 British miles,) was traversed by Mr. Carmichael in 322 travelling hours, and by Mr. Hunter in 299½.

The Camel has four stomachs : in one of these the animal can store up a quantity of water before it sets off on its journey; and when this water is wanted, the animal can make use of it to refresh itself and moisten its food. It bears hunger surprisingly well, and is satisfied with a few dates or beans when its regular meal cannot be had. Its broad and tough feet are suited to the soft sand ; as they may be spread out when necessary. When the hot sands are blown up by the wind, the creature can close its nostrils, and is thus spared a great deal of pain and injury.

The Arabian Camel, or Dromedary, has a single hump: this animal has been employed from the earliest times as a beast of burden. The Bactrian Camel has two humps : it is confined to central Asia, and Tartarian China.

The Dromedary measures from five to seven feet high. It is gentle and teachable when kindly treated; but is impatient under rough usage, and unwilling to be tasked beyond its strength. What a hard-hearted person must that be who would treat with cruelty any dumb animal, especially one whose services have been so long and so willingly given to man; and how greatly would persons consult their own interest as well as duty, by refraining from exacting an unfair measure of labour from beasts of burden. The Arabian proverb says, "It is the last hair that breaks the Camel's back."

This kind of Camel is frequently alluded to both in the Old and New Testament. We read in the twelfth chapter of Genesis, that Abraham had Camels. Part of the substance of Job was 3,000 Camels, Job i. 3. "The bunches of Camels" are noticed by Isaiah, xxx. 6. John the Baptist had his raiment of Camel's hair, Matt. iii. 4.



THE NYL-GHAU.

ANTILOPE PICTA.

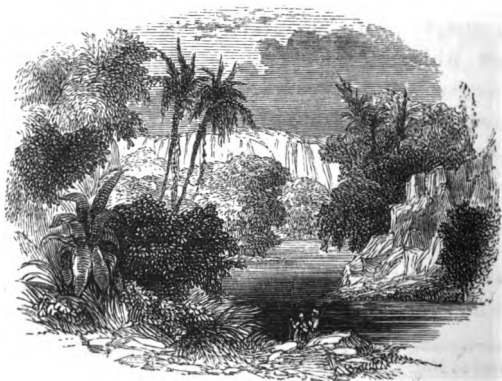
THE NYL-GHAU is a fine species of antelope, and is a native of India. Nyl-Ghaus were among the beasts which were hunted by the Mogul emperor, Aurung-zebe,* during his journey from Delhi to his summer residence in Cashmeer.

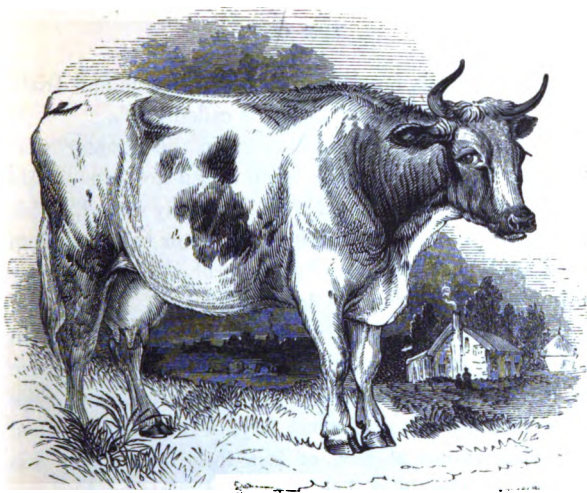
The male Nyl-Ghau is larger and more robust than the stag. The female is much smaller than the male, and is of a lighter and more slender form. She has no horns, nor any hump on the shoulders. The colour of the animal is a pale reddish brown, marked with spots and patches of white.

* Aurung-zebe, called the Great Mongul, reigned in Hindostan, from the year 1658 to 1707.

There is one of these creatures now in the gardens of the Zoological Society, London. It is gentle and familiar, licking the hands of those who offer it bread, and suffering itself to be fondled without showing any fear. There are, however, times at which its temper is violent. When angry, and intending to attack, it falls suddenly on its front knees, shuffles onward to within a few paces of the object of its resentment, and then darting forward, butts with its head in a most resolute manner. Like most other creatures, it is best managed by kind treatment. In the printed list of animals in that fine collection, it is stated that *Nyl Ghau* means *Blue Bull*.

During the last century a pair of Nyl-Ghaus were kept in a paddock in Blenheim park: but as they frequently showed symptoms of ferocity, and were thence considered dangerous, they were destroyed.





THE COW.

BOS TAURUS. (Fem.)

THIS animal is of the Ox kind. Beasts of this tribe are more serviceable even than sheep. Almost every part of the Cow is of use. Boxes, combs, knife-handles, and drinking-cups, are made of the horns, and glue is made of the hoofs. The bones sometimes answer the same purpose as ivory; and they are also used for manuring the ground. The skin is made into leather for shoes, and for book-binding; the fat into tallow. The hair is a valuable help in making mortar; the blood in purifying sugar, and making Prussian blue; the gall in cleaning carpets, &c.

How much of our food comes from the Cow! We are indebted to her for milk, cream, and butter. Butter-milk

from the Cow is much drank by the Scotch and Irish. The flesh of the Ox, we know, is called beef.

It is a proof of great kindness in the Creator, that those creatures which are most useful to man should be the most plentiful, and the most easily reared. This is the case with Oxen. Some species or other of them are found in most parts of the world. They are very mischievous when in a wild state.

The Cow is not wanting in sagacity. Mr. Bell, in his History of British Quadrupeds, records the instance of a Cow, which, after being annoyed for some time in a field by a mischievous boy, who had continued throwing stones at her, at last took him up by his clothes, on the tip of her horn, and, putting him out of the field, quietly deposited him in the road, leaving him much frightened but not hurt.

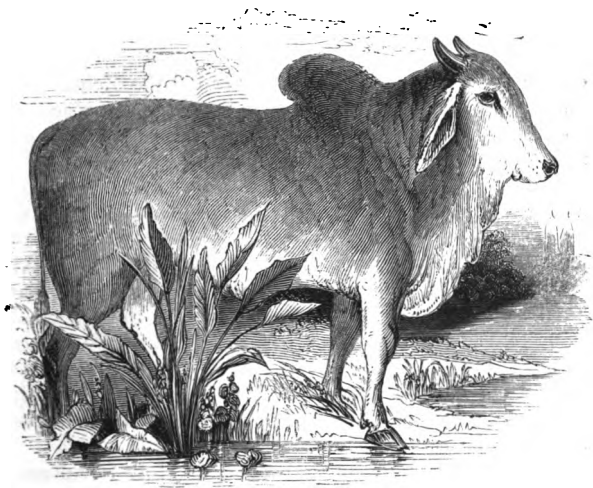
Oxen are frequently employed as beasts of draught and burden, as they were in the time of Job and the Israelites. The oxen of Job were ploughing, when the Sabæans seized, and took them away.* Elisha was ploughing with twelve yoke of oxen when Elijah cast his mantle upon him.†

In the Bible we read of clean and unclean animals. Oxen are among the clean. The Cow is mentioned by Isaiah. That prophet, foretelling, by a similitude, the peaceable effects of Christ's religion, says: "The cow and the bear shall feed; their young ones shall lie down together, and the lion shall eat straw like the ox."‡

* Job i. 14, 15.

† 1 Kings xix. 19.

‡ Isaiah xl. 7.



THE INDIAN OX.

BOS TAURUS, VAR. INDICUS.

THIS is one of the many varieties of the Ox : the different species resemble each other, in having a divided hoof, feeding on vegetable substances, and chewing the cud. The chief particular in which the animal represented above differs from the common Ox, is the hump on the shoulders. The hump is chiefly composed of fat, and has sometimes been known to weigh fifty pounds. This is reckoned very good as food ; indeed it is the most delicate part.

The varieties of these creatures are met with over the whole of Southern Asia, the islands of the Indian Archipelago, and the eastern coast of Africa, from Abyssinia to the Cape of Good Hope. They are of different sizes and colours ; some being as large as a common cow, others not larger than a mastiff dog. That

of the smaller kind is generally called the Zebu. In all these countries, the creature supplies the place of an ox, both as a beast of burden, and an article of food. In some parts of India, it serves instead of a horse, being either saddled and ridden, or harnessed in a carriage, performing in this manner journeys of considerable length. The usual distance which it can travel is from twenty to thirty miles a day. All the species are treated with great regard and veneration by the Hindoos, who hold it sinful to deprive them of life. A select number of these animals are never allowed even to labour, but have the privilege of straying about the towns and villages, taking their food wherever they please, or receiving it from the hands of the natives.

The ox is frequently mentioned in Holy Scripture. The wealth of the patriarchs consisted in a great degree of cattle. Abraham and Jacob are recorded to have been rich in cattle.* Job had five hundred yoke of oxen, besides camels, sheep, and asses.† The ox was considered by the law of Moses to be clean, and was much used by the Jews in their sacrifices. It is alluded to by the Prophets: Isaiah contrasts its sagacity and gratitude with the folly and unthankfulness of the people with regard to God: "The ox knoweth his owner, and the ass his master's crib; but Israel doth not know, my people doth not consider."‡ When the Son of God became man, and dwelt on earth, one of the first acts of His ministry was to clear the temple at Jerusalem of "those that sold oxen, and sheep, and doves." . . . "He drove them all out of the temple, and the sheep, and the oxen."§ St. Paul reminds the Corinthians, "It is written in the law of Moses, Thou shalt not muzzle the ox that treadeth out || the corn."¶

* Gen. xii. 16; xxiv. 35, and xxx. 43.
- § John ii. 14, 15. || Heb. *thresheth*.

† Job i. 3. ‡ Isaiah i. 3.
¶ Deut. xxv. 4. 1 Cor. ix. 9.



THE CAPE BUFFALO.

BOS CAFFER.

THIS animal is of the Ox tribe : it is a native of South Africa, and is well known among the inhabitants of that country for its savage disposition and enormous strength. Happily, as agriculture and population have been extended, this creature has become less an object of terror than formerly among the natives and settlers of the Cape colony ; but it still finds a shelter in the large forests and jungles of the eastern districts. Skulking in one of these jungles, the Buffalo watches the passing traveller, and suddenly rushes out upon him. In this way, when in a mischievous temper, he will assail a party of men with their horses.

It is stated by the Swedish traveller Sparrman, and others, that if one of these Buffaloes kills a man by tossing and goring him with its horns, it will stand over him for a long time, trampling upon him with its hoofs, pressing him with its knees, mangling the body with its horns, and stripping off the skin with its rough and prickly tongue. It appears, however, that the animal shows this shocking ferocity chiefly when in a state of irritation, at certain seasons of the year, or when it has been provoked by hunters.

The Hottentots pursue on foot the dangerous and dreadful sport of hunting the Cape Buffalo ; and, from their lightness and activity, they generally succeed in escaping injury, and despatching their prey. It is said, that the hide of this Buffalo is so thick and tough, that, in some parts, a common musket-ball will not penetrate it. Tin is therefore mixed with lead in preparing the balls designed for this purpose. The strongest and best thongs for harness are made of the hide.

Like the hog, this animal is fond of wallowing in the mire. Its flesh is lean, but juicy, and of a high flavour. The Hottentots cut the flesh into slices, smoke it, and broil it on the coals.





THE AMERICAN BISON.

Bos Bison.

THE BISON is generally of a larger size than our common Ox, and is so strong, that when he runs through the woods from his pursuers, he has been seen to level trees as thick as a man's arm. These animals are met with throughout the wild and distant parts of North America, where they are the chief food of the natives. The flesh, when in good condition, is juicy and well-flavoured, resembling that of beef. The tongue is considered a delicacy, and may be cured so as to surpass in flavour the tongue of an English cow. The hump of flesh over the shoulders is much esteemed.

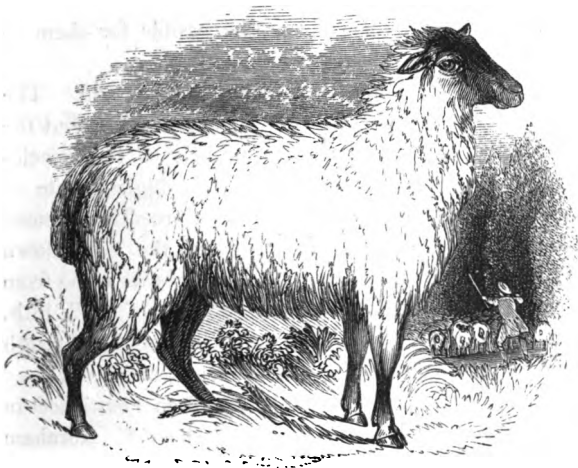
Captains Lewis and Clarke saw vast numbers of Bisons assembled on the banks of the Missouri. "Such was their multitude, that though the river, including

an island over which they passed, was a mile in width, the herd stretched, as thick as they could swim, completely from one side to the other." The same travellers state, that they saw a moving mass of these creatures, to the amount of twenty thousand, darkening the plains.

When attacked the Bison generally takes to flight ; but when assembled together in numbers, these animals are often less wary, and will then boldly follow their leaders, regardless of danger. It is hazardous for the hunter to show himself after having wounded one ; for it will continue to follow him, and, though its gait may be heavy and awkward, it will generally overtake the fleetest runner. An old Bison has been known to wait for hours under a tree in which a hunter has found a retreat from his terrible enemy.

Bisons are destroyed in great numbers by the savage tribes of Indians, who would not know where to find support, if this article of food should fail. One way of killing them is to force a numerous herd to leap together from the brink of a dreadful precipice upon a rocky and broken surface below, where certain death awaits them. The Indians practise this mode by working on the fears of these large animals. Selecting some active, swift-footed young man, they disguise him in a Bison's skin, making the deception so complete that the creatures mistake him for one of their own species ; and, when under the influence of terror occasioned by the loud and sudden yells of the Indians, they hasten whither he leads, namely, to the edge of a cliff, where he secures himself in some well-known crevice, while they leap or tumble in confused masses over the side.

A large, fierce-looking Bison was, a few years since, shown in London, and other places, under the name of the Bonassus.



THE SHEEP.

OVIS ARIES.

THIS is one of the most useful and interesting animals in our collection. It is perhaps also the most defenceless, and ought to be very kindly treated. We all know the value of its flesh for our food, its wool for our clothing, its fat for giving us the means of light in the dark winter nights, its skin for leather. In Wales, and in the highlands of Scotland, its milk supplies butter and cheese.

Sheep bred on the mountains show much boldness and agility in leaping from crag to crag, and venturing in sport, or for food, to small and narrow ledges, from

whence it would seem almost impossible for them to make their way back.

They are found in most parts of the world. The flavour of the Welsh Sheep, which run wild about the mountains, is very fine; but animals of this species appear to have been brought to the highest state of perfection in England. The Dorset breed is esteemed handsome. For general purposes, the Southdown Sheep is highly valued. This last takes its name from a vast tract of downs formed by a range of chalk hills, extending more than sixty miles in length, through part of the counties of Sussex, Surrey, and Kent.

Sheep, as well as shepherds, are often mentioned in the Bible. Abel was a keeper of sheep.* Abraham had sheep.† David kept his father's sheep, and rescued one of the lambs from a lion and a bear.‡ Part of the substance of Job was seven thousand sheep.§ The lamb was employed as a sacrifice for an atonement among the Jews; and the lamb slain at the feast of the Passover, Exod. xii. was a type, foreshowing the death of Christ, who is called "our Passover," and who was "sacrificed for us."|| Good Christians are sometimes called sheep in Holy Scripture, on account of their harmless and useful lives; and the righteous at the day of judgment are represented under the same figure.¶

* Gen. iv. 2.

§ Job i.

† Gen. xii. 16.

|| 1 Cor. v. 7.

‡ 1 Sam. xvii. 34, 35.

¶ Matt. xxv. 32, 33.



THE GOAT.

CAPRA HIRCUS.

THE GOAT is a strong, active, hardy animal. In Wales it is found very wild, and roaming over the most rugged parts of the mountains and rocks, in search of food, or in sport. It keeps its footing on the smallest point on which its feet can possibly rest, and takes leaps from one ledge to another, with confidence, as if certain of alighting safely, however dangerous the attempt may appear. The poet, Gray, in describing some of the hilly and mountainous scenery in Craven, in the West Riding of Yorkshire, says,

“On the cliffs, above 300 feet high, hung a few

goats : one of them scratched an ear with its hind foot in a place where *I* would not have stood stock-still,

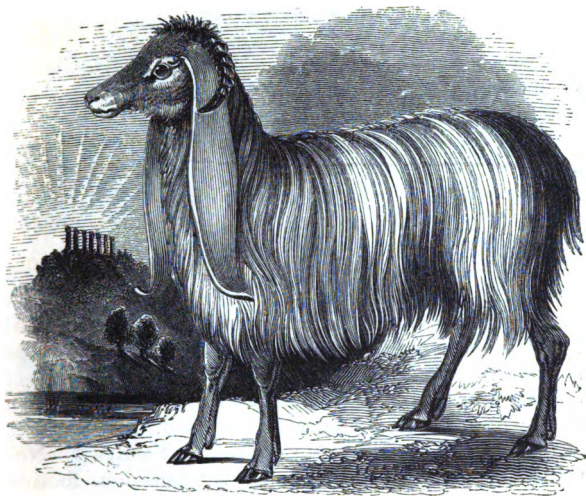
‘ For all beneath the moon.’ ”

Thus the Goat finds food where other creatures cannot venture, among the heights, not only of our own country, but of the Alps and Pyrennees. Besides this, it eats with a relish certain plants which to most animals would be hurtful, such as hemlock, henbane, and foxglove. It is easily tamed, and becomes fond of man, showing much pleasure in his society, and being kind and playful to those who caress it. Many persons keep Goats in stables, with an idea that they are good for the health of horses. It is likely that they promote the good temper of their companions. Good temper and cheerfulness tend to health ; and it is a fact that a horse often shows great attachment to a Goat.

The hair of the Goat is very useful in making shawls, and other articles of dress ; its skin is made into Turkey or Morocco leather ; and the skin of the kid, or young Goat, becomes, when dressed, soft and beautiful leather for gloves.

Frequent reference is made in Scripture to the Goat. Jacob, by the direction of Rebecca, fetched “ two good kids of the goats,”* to dress for his father Isaac. “ The high hills are a refuge for the wild goats.”† In the Book of Proverbs we find an allusion to their milk.‡ Under the Mosaic law the goat was selected and offered in sacrifice, as a “ sin-offering for the people.”§

* Gen. xxvii. 9. † Psalm clv. 18. ‡ Prov. xxvii. 27. § Lev. ix. 15.



THE SYRIAN GOAT.

CAPRA HIRCUS, VAR.

THE general appearance and habits of the Goat are nearly the same in all countries. It loves to feed on the tops of hills, and prefers the elevated and rugged parts of mountains. It finds sufficient nourishment on dry and barren spots. Goats are so active, that they leap with ease among the precipitous rocks of the country which they inhabit. They render great service to mankind; their flesh being salted for winter provision; and their milk is used for the making of cheeses. The flocks in which they congregate are from ten to twenty in number. The Syrian Goat is distinguished by its long pendulous ears, which, according to Russell, in his Natural History of Aleppo, are sometimes upwards of a foot in length.

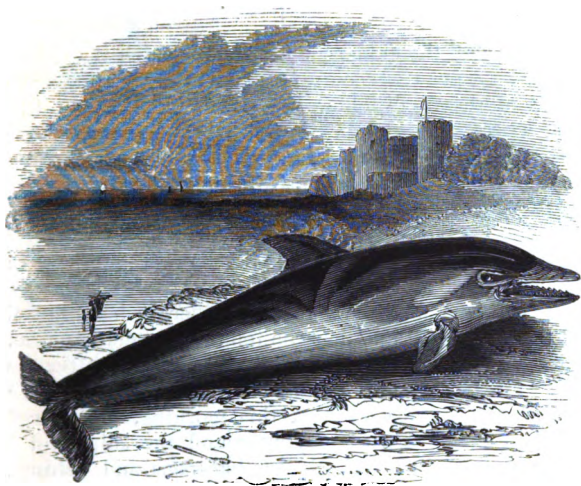
The celebrated traveller, the Rev. Dr. E. D. Clarke, on his road from Jerusalem to Bethlehem, met an Arab with a Goat which he led about the country for exhibition. The man had taught this animal, while he accompanied its movements with a song, to mount upon little cylindrical blocks of wood, placed successively one above the other, and in shape resembling the dice-boxes belonging to a backgammon-table.

"In this manner," says Dr. Clarke, "the Goat stood first upon the top of one cylinder, then upon the top of two, and afterwards of three, four, five, and six, until it remained balanced upon the top of them all, elevated several feet from the ground, and with all its feet collected upon a single point, without throwing down the disjointed fabric upon which it stood. The practice is very ancient. It is also noticed by Sandys * Nothing can show more strikingly the tenacious footing possessed by this quadruped, upon the jutting points and crags of the rocks; and the circumstance of its ability to remain thus poised may render its appearance less surprising, as it is sometimes seen in the Alps, and in all mountainous countries, with hardly any place for its feet, upon the sides, and by the brink of the most tremendous precipices. The diameter of the upper cylinder, on which its feet ultimately remained until the Arab had finished his ditty, was only two inches, and the length of each cylinder was six inches."

* George Sandys, a traveller and poet. He began his travels in the East in the year 1610. Speaking of the inhabitants of Cairo, he says, "I have seen them make both dogs and goats to set their four feet on a little turned pillar of wood, about a foot high, and no broader at the end than a palm of a hand, climbing from one to two, set on the top of one another, and so to the third and fourth; and there turn about as often as their masters would bid them."

We cannot but condemn the cruelty of a practice which he goes on to describe in the following passage.

"They carry also dancing camels about, taught when young, by setting them on the hot hearth, and playing all the while on an instrument; the poor beast, through the extremity of heat, lifting up his feet one after another. This practise they for certain months together; so that at length, whensoever he heareth the fiddle, he will fall a dancing. Asses they will teach to do such tricks, as if possessed with reason."—*Sandys's Travels*, fol. 1673, Book ii. p. 98.



THE DOLPHIN.

DELPHINUS DELPHIS.

MANY interesting, but fabulous, stories are told of the Dolphin in the writings of the ancient classic authors. Peculiar traits in the character of any animal formed sufficient grounds for those who had "gods many, and lords many,"* to assign to it supernatural qualities and attributes ; and thus "the beasts that perish"† had their share, with the heathen divinities, in the homage and estimation of men unenlightened by Gospel truth.

These remarks are true of the Dolphin, whose habits have probably given rise to the strange tales which have been invented respecting it. Professor Bell says : "The excessive activity and playfulness of its

* 1 Cor. viii. 5.

† Psalm xlix. 12.

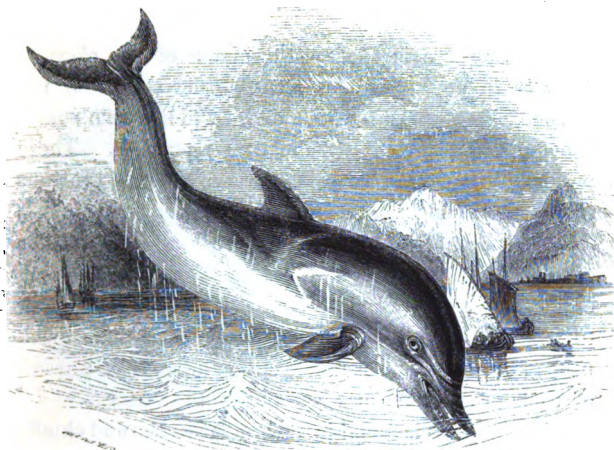
gambols, and the evident predilection which it evinces for society, are recorded by every mariner. Numerous herds of them will follow and surround a ship in full sail, with the most eager delight, throwing themselves into every possible attitude, and tossing and leaping about with elegant and powerful agility, for no other apparent purpose than mere pastime." It is, however, he adds, "a voracious, and even gluttonous, animal;" and the eagerness with which it follows a ship may in some measure arise from the hope of obtaining food.

The amiable and pious Bishop Heber, in his *Journal of a Voyage to India*, has the following memorandum, on Sunday, July 13, 1823, (about a month after he had embarked from England for his diocese.) "We had divine service on deck this morning. A large shoal of dolphins were playing round the ship, and I thought it right to check the harpoons and fishing-hooks of some of the crew. The wanton destruction of animal life seems to be precisely one of those works by which the sanctity and charity of our weekly feast would be *profaned*. The seamen took my reproof in good part, and left the mizen-chains, where they had been previously watching for their prey."

Its flesh was formerly considered a delicacy, and served up like that of the porpoise, with a sauce composed of crumbs of bread, sugar, and vinegar; but these animals are now excluded from the table.

The female Dolphin produces but a single young one at a time, which she nurses and suckles with great tenderness and care. The mother lies partly on one side, to enable both herself and her offspring to breathe easily, while the suckling is going on. The milk is plentiful and rich.

The general length of the full-grown Dolphin is from six to eight or nine feet. The outward orifice of the organ for hearing is scarcely larger than a pin-hole.



THE COMMON PORPOISE.

PHOCÆNA COMMUNIS.

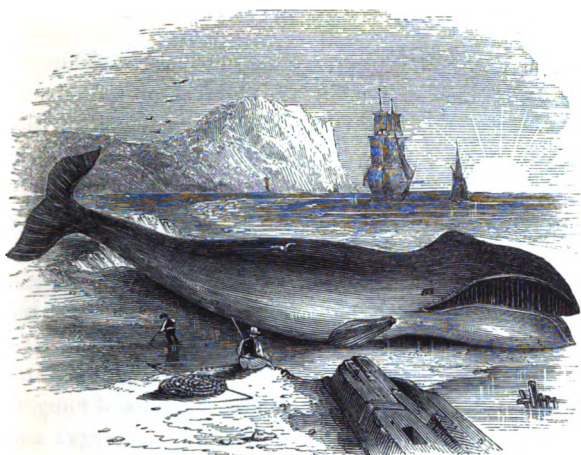
ANIMALS of the kind called *Cetacea*,* such as whales, dolphins, and porpoises, living as they do in the sea, were formerly arranged under the order of fishes; and even Linnæus, following Ray, classes them so; but their structure and habits, when scientifically considered, entitle them to a place among British quadrupeds, inasmuch as these creatures have all the essential characters of mammiferous animals: they have warm blood, and a complete double circulation; they breathe the air by means of true lungs; they bring forth their young alive, and nourish them tenderly and carefully with their milk.

* From a Greek word, signifying a Whale.

The Porpoise is the most common of the class of *Cetacea* in our seas. Its name is derived from the French, *Porc-poisson*, which answers to the term sometimes given to it, of Sea-Hog, or Hog-Fish. These animals make their appearance in herds of various numbers, playing and tumbling with much agility. On the approach of a storm, when the sea begins to be disturbed, they may be seen taking their pastime, as if enjoying that state of the ocean which is so threatening to the helpless mariner. They then show their black backs above the surface, and, either in sport or pursuit of their prey, sometimes leap out of the water.

The Porpoise is found in several latitudes, and chiefly frequents our coasts in the Autumn and Spring. On the western coasts of Ireland, and among the Western Islands of Scotland, they are met with in vast numbers. They ascend our rivers in pursuit of fish, and have frequently been seen in the Thames above London-bridge. They are sometimes caught for the sake of their oil. Two were taken in the Wareham river, which, together, yielded sixteen gallons. One of them was found to have milk, which tasted salt and fishy. The total length of the Porpoise is from four to eight feet.





THE COMMON WHALE.

BALÆNA MYSTICETUS.

THE usual length of the Common Whale is from 50 to 60 or 65 feet, and its greatest circumference is from 30 to 40 feet. The head is very large, being about 16 or 17 feet long, by 10 or 12 broad, and measuring about one-third of the entire length of the fish. There are no teeth. The layers of whalebone, which fill the cavity of the mouth, are arranged in two rows, of about three hundred each. These act as strainers for the prey on which the animal lives. When a Whale is taking food, its vast mouth being opened large quantities of small fish and sea-insects are inclosed; and, on the mouth being shut, the water passes away, leaving these caught, as in a sieve, for the purpose of the creature's nourishment.

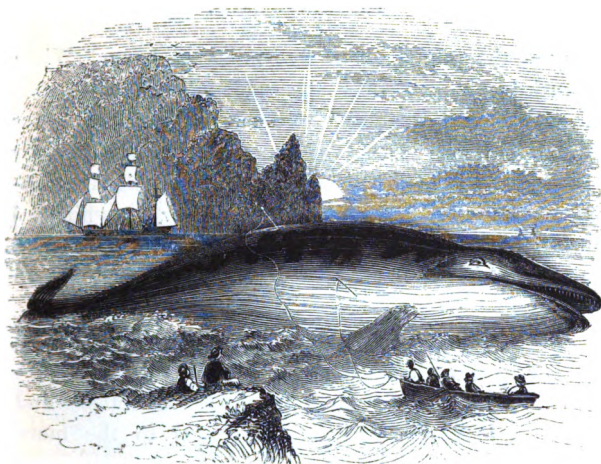
The whalebone is a very valuable and well-known article of commerce ; but the chief object of pursuit in Whale-fishing, is the oil which is found in the blubber or fat. For this purpose, a great many vessels are sent every year to the Northern seas, particularly to Davis's Straits. The blubber of a Whale, sixty feet long, will yield more than twenty tons of pure oil.

The dangers which attend the pursuit of this species, as well as of the Cachalot, or Spermaceti Whale, are truly frightful. Some of the men employed in the service fall victims to the intense cold of an Arctic winter, or to the combined effects of cold and hunger. The vessels are occasionally wrecked by icebergs ; and accidents sometimes occur in the act of attacking the Whale, which, on finding itself struck with the harpoon, often lashes violently with its tail, and destroys the boat, or sinks rapidly into the deep, causing a whirlpool which may prove fatal to the whalers.

The female of this species, like most others of the Whales, is much attached to her young, and is ready to rush on danger, and even death, to rescue or defend her helpless charge. Thus, if a young one is harpooned, the mother generally follows, as if to help, but, in fact, almost always to perish with it.

The Whale has usually but one young one at a time. The young Whale, at its birth, is about ten or twelve feet long.

Mention is made of the Whale in several parts of Holy Scripture. See Gen. i. 21 ; Ezek. xxxii. 2 ; Matt. xii. 40.



THE FIN WHALE, OR RORQUAL.

BALÆNOPTERA BOÖPS.

THE Rorqual is the largest of all Whales, and consequently is of all animals the largest now in existence. It sometimes reaches the enormous length of eighty or even a hundred feet. Its food consists not only of the small animals on which the Common Whale subsists, also of fish of considerable size.

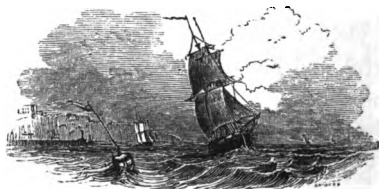
The blubber of the Rorqual does not, in most instances, yield oil in sufficient quantities to make this powerful and active creature a great prize to the but Whale-fishers.

Its habits are different from those of the Common Whale. It is less quiet in its movements, seldom lying motionless on the surface of the water, but making

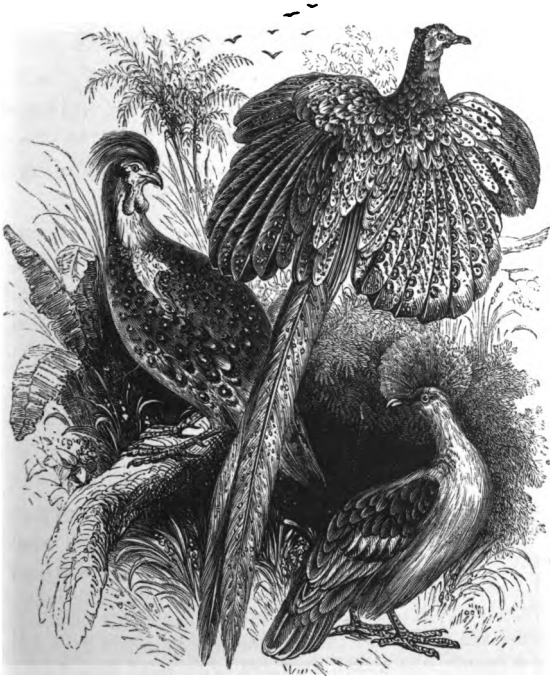
way at the rate of about five miles an hour. When struck by the harpooner, the suddenness of its descent is such as very frequently to break the line. At other times, the rapid rising of the wounded creature for breath, the violent movements which its agony occasions, the brandishing of its vast tail, or the whirlpool produced by its sinking, have either of them been known to cause the destruction of the boats within its reach.

The Rorqual is occasionally met with on the shores of our islands, and in the northern seas it is very common. It is often seen off the coast of Zetland and Orkney, and, now and then, descends to the more southern parts of our seas.

The enormous skeleton which was exhibited, in a temporary building erected for it, near the Royal Mews, Charing Cross, a few years ago, belonged to this species. It had been towed into the harbour of Ostend. The following are the measurements of that specimen :—Total length, 95 ft.; breadth, 18 ft.; length of head, 22 ft.; length of spine, 69 ft. 6 in.; breadth of tail, 22 ft. 6 in. The weight of it when taken, was 249 tons, or 480,000 pounds, and 4,000 gallons of oil were extracted from the blubber.



BIRDS.



“ Having as briefly as well as I could, despatched the tribe of QUADRUPEDS, I shall next take as brief and transient a view of the FEATHERED TRIBE. And here we have another large province to expatiate in, if we should descend to everything wherein the workmanship of the Almighty appears. But I must contract my survey as much as may be, and shall therefore give only such hints and touches upon this curious family of animals, as may serve for samples of the rest of what might be observed.”—*Physico-Theology* by the Rev. W. Derham, 1711.



THE CONDOR.

VULTUR GRYPHUS.

THE Condor was very imperfectly known to naturalists until the beginning of the present century. Exaggerated statements were made of the enormous size and rapacious habits of this species of Vulture ; but a modern traveller, Baron von Humboldt, in describing the bird such as it really is, has corrected the accounts which had been received, and which had found a place in several useful and interesting works of Natural History.

It is chiefly met with in South America, inhabiting lofty and snow-covered mountains, at an elevation of from 10,000 to 15,000 feet above the level of the sea ; and when driven by hunger, descending into the plains, which it quits as soon as it has satisfied its appetite, as if unable to endure the heavier atmosphere and warmer climate below.

Though there is no sufficient authority for the stories of the Condors having carried off young children, and even attacked men and women, the boldness and ferocity of these birds are extraordinary. Two of them, acting together, will frequently attack a puma, a llama, a calf, or even a full-grown cow. They will follow up the poor animal, allowing it no respite, but tearing it with their beaks and talons, till it falls, worn out with fatigue and loss of blood. After feeding with disgusting greediness on their prey, they are often unable to fly.

The Indians, for sport, sometimes place in sight of a troop of three or four Condors, the carcase of a horse or cow, by way of food. As soon as the birds have finished their meal, and are unable, from the quantity of food they have taken, to use their wings, the hunters appear, armed with a lasso, or rope, which they slip round the birds' necks, and catch them.

M. Humboldt states that the Condor is very tenacious of life. He saw one strangled with a lasso, and hanged on a tree, the Indians pulling it violently by the feet for several minutes ; but on the removal of the lasso, the bird got up, and walked about as if unhurt. It was afterwards shot at four paces off, with three pistol balls, all of which entered its body ; but it kept its legs till a ball struck its thigh. This act was exceedingly cruel, and therefore admits of no defence. It is mentioned here for the purpose of proving the creature's tenacity of life : but such treatment of a defenceless animal must be condemned as cowardly and cruel.

The author of the illustrated work, entitled, "The Gardens and Menageries of the Zoological Society," says :—"The fine male Condor figured at the head of this article, is as quiet and resigned as any of the other birds of prey in the collection."



THE GOLDEN EAGLE.

AQUILA CHRYSÆTOS.

THIS rapacious bird is found in various parts of Europe, building its nest in clefts of rocks, or on lofty trees, and sweeping the country round in search of the living animals on which it feeds. It is met with in North America, and is said to be also an inhabitant of Asia Minor and North Africa.

It is properly classed among British birds, as it is occasionally seen in some parts of England, and is more common in Scotland, and the Scottish isles. Mr. Mudie, in his "Feathered Tribes of the British

Islands," mentions "the higher glens of the rivers that rise on the south-east of the Grampians, the high cliff called Wallace's Craig, on the northern side of Lochlee, and Craig Muskeldie," as places frequented by the Golden Eagle.

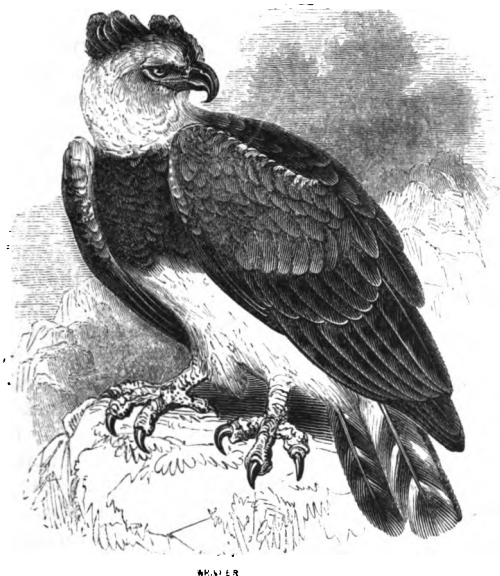
The flight of this bird is very majestic and powerful. Mounting to a great height, it descends upon its victim with overwhelming rapidity and force, and, if it be not too heavy, bears it off in its talons to its nest. This nest is a flattened platform, several feet square, and consists of strong sticks fastened together.

The length of a full-grown male Eagle is nearly three feet; the female is still larger. From the great strength and size of the bird, it preys with ease on fawns, lambs, hares, and other game; sometimes on fish, but rarely on any thing which it finds dead. One of them boldly descended in the sight of some sportsmen in the neighbourhood of Ben-Lomond; and, notwithstanding their shouts and threats, carried off a Red Grouse which they had slightly wounded.

The female bird is said to be very attentive to her young ones, until they are able to take care of themselves.

The allusions to the Eagle in the Bible are frequent. God's care of His people is set forth, in the song of Moses, under the following similitude:—"As an Eagle stirreth up her nest, fluttereth over her young, spreadeth abroad her wings, taketh them, beareth them on her wings; so the Lord alone did lead him."*

* Deut. xxxii. 11, 12.



THE HARPY EAGLE.

HARPYIA DESTRUCTOR.

THIS noble bird, the most magnificent of the Eagle tribe, is distinguished from other eagles, by the shortness of its wings, the great robustness of its legs, and the extraordinary curve of its beak and talons. Linnaeus, quoting from Hernandez, says, that it is equal in size to a common ram, and that it is able to split a man's skull with a single blow of its beak. We are also told, that it carries off in its talons, fawns and other young quadrupeds; and that it is so bold as to attack even man himself.

The Rev. Dr. Gilly, in his "Second Visit to the Vaudois," relates the case of an infant who was carried away by an eagle from one of the rich Alps, or moun-

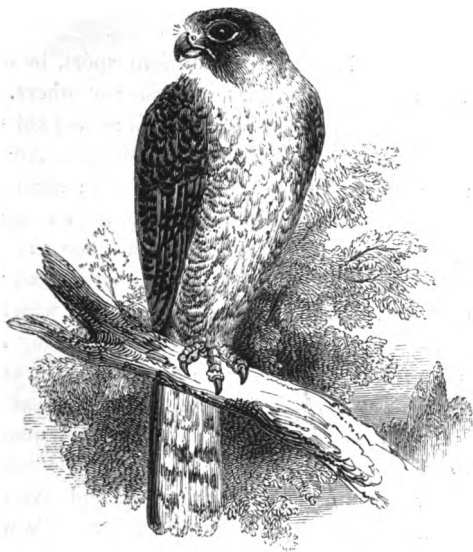
tain pasture lands which overhang the Durance, near Briançon. The distressed parents, in whose absence the event occurred, knew not what had become of their baby, and the child, in whose care it had been left, was dumb, and could not make them acquainted with the dreadful fact. But on the morning on which it had happened, an Alpine hunter,

“ Whose joy was in the wilderness, to breathe
The difficult air of the iced mountain's top,”

had been watching near an Eagle's nest, with the hope of shooting the bird on her return to her young. On her nearer approach, he heard the cries, and distinguished the figure of an infant in her frightful talons. In an instant his resolution was formed, to fire at the bird the moment she should alight on her nest, and rather to kill the infant than allow it to be torn to pieces by birds of prey. With a silent prayer, and a steady aim, the mountaineer poised his rifle. The ball went directly through the eagle; and in a minute afterwards he snatched the infant away, and took it to its mother. The poor baby was wounded in the arms and side, but it afterwards recovered.

A specimen of the Harpy Eagle, in the possession of the Zoological Society of London, is stated to have been found in South America, but to have been rare in that part of the world. Indeed, when its tremendous powers of destruction are considered, it appears to be a happy circumstance that the creature is nowhere common. Living in solitude, in the depth and darkness of the thickest forests, it is seldom disturbed by the eye of curiosity.

In captivity there is little to distinguish its manners from those of other birds of its tribe. One taken from the nest, became so tame as to suffer its head to be handled and scratched; but, in its passage towards Europe, it was killed, as was supposed, by the sailors, whose monkeys it had destroyed. The unfortunate monkeys, having approached too near its cage, were seized by its powerful talons, and speedily devoured.



THE PEREGRINE FALCON.

FALCO PEREGRINUS.

THIS species is called Peregrine, from a Latin word signifying *a foreigner*, because it has been found in very distant parts of the world. The Peregrine Falcon is more common in Scotland than in England. In this country it makes its nest on the high cliffs near the Needle Rocks, in the Isle of Wight. It is met with in Devonshire and Cornwall, and is said to be also an inhabitant of rocky situations in Ireland.

It is this species which is generally used at the present day, by persons who still occasionally pursue

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the diversion of hawking—an ancient sport, in which one bird is taught to attack and destroy others. Its extraordinary powers of flight, as well as its habits, are thus illustrated by Walton, in his “Complete Angler.”

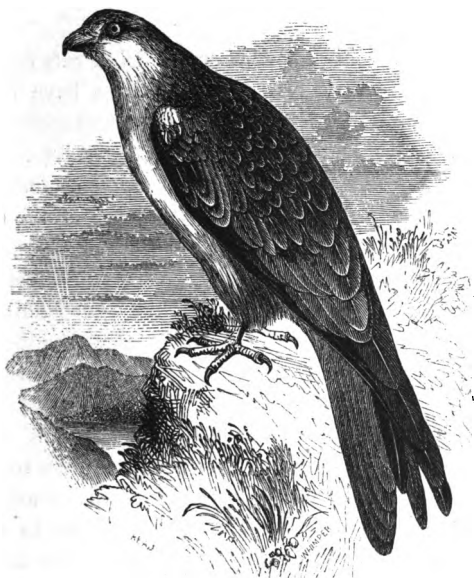
“In the air, my noble, generous Falcon ascends to such a height as the dull eyes of beasts and fish are not able to reach to ; *their* bodies are too gross for such high elevation ; but from which height I can make her to descend by a word from my mouth, which she both knows and obeys, to accept of meat from my hand, to own me for her master, to go home with me, and be willing the next day to afford me the like recreation.”

So many were Izaak Walton's amiable qualities, that his indifference to the sufferings undergone by animals for the amusement of “the contemplative man,” cannot but surprise the thoughtful reader of his work.

The female Peregrine is called the Falcon from her greater size, power, and courage, and is usually flown at herons and ducks : the male Peregrine, being much smaller, sometimes one-third less, is called the Tercel, or Tiercel, and is more frequently flown at partridges, magpies, and such humbler game.

The whole length of a full-grown Peregrine Falcon is from fifteen to eighteen inches.

Sir John Sebright, in his “Observations on Hawking,” says, that a well-stocked heronry, in an open country, is necessary for this sport, which was witnessed in its greatest perfection a few years since, at Didlington, in Norfolk, the seat of the late Lord Berners, formerly Colonel Wilson.



THE KITE.

MILVUS ICTINUS.

THE Kite is of the falcon tribe, and is a bird of prey, feeding entirely on animal food. There are a great many species of this tribe, but the Kite is easily known, even when at a distance on the wing, by its long and forked tail. It is about twenty-six inches in length. The flight of this large bird is very graceful and easy. It soars to a great height, making circles as it mounts in the air.

In its mode of taking its prey, the Kite differs from falcons and hawks in general, by pouncing upon it on

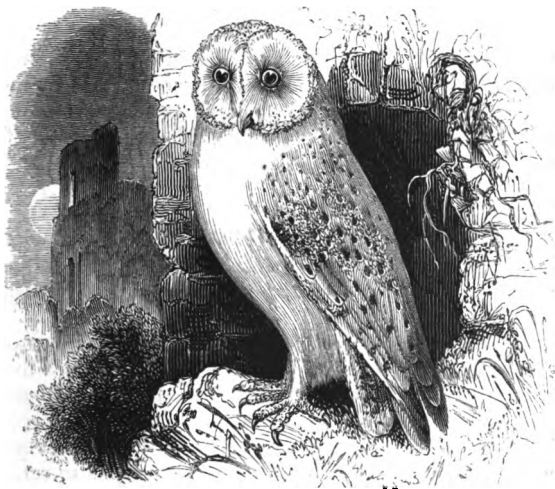
the ground. The kind of creatures which it eats makes this habit necessary. Twenty-two moles have been found in the nest of a Kite, besides frogs and unfledged birds: it preys also on leverets, mice, snakes, and young game. In consequence of its fondness for this latter dainty, gamekeepers are always glad of the opportunity of killing it, so that it is rare in many parts of England. Like the sparrow-hawk, it frequently visits the poultry-yard; but the hen, like a good mother, is so bold in guarding her chickens, that she often drives the cruel Kite away before it can steal one of them.

This bird sometimes takes fish out of rivers, and alights on the bank to eat them, or carries them to its nest, which is formed of sticks, and lined with feathers and other soft materials, and is usually placed in the forked branch of a tree in a thick wood. Two or three eggs, of dingy white, marked with a few brown spots, are laid early in the season. The nest is well defended by the parent Kite. A boy who climbed up to one, had a hole pecked through his hat, and one hand severely wounded, before he could get at the young birds.

The Swallow-tailed Kite, a very elegant bird, is a native of the Southern States of North America, and very rarely visits this country.

The Kite was reckoned an unclean bird among the Jews, and might not be eaten.*

* Lev. xi. 14.



THE BARN OWL.

STRIX FLAMMEA.

THE Barn Owl is a very useful bird, and may be called the farmer's friend ; for it clears away the mice from the corn and the fields as well as a cat could do. Its dwelling for the greater part of the year is in barns, hay-lofts, or out-houses. It sometimes takes up its abode in an old ruin, the tower of a church, a hollow tree, or some such lonely place. The poet Gray in his beautiful "Elegy written in a Country Church-yard," has drawn a fine picture of this solemn bird, and its appropriate place of retreat :—

———" From yonder ivy-mantled tower
The moping Owl does to the moon complain
Of such as, wand'ring near her secret bower,
Molest her ancient solitary reign."

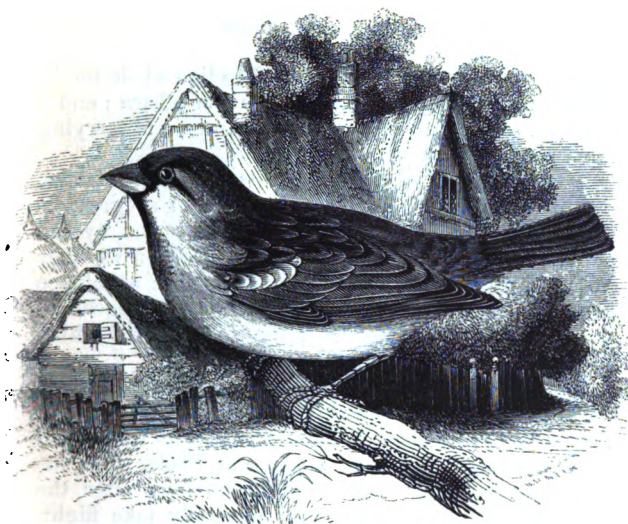
When the dusk comes on, away it flies after its food. It seldom goes out in the day-time, because it cannot

see clearly in the light ; and if it does go out in the day, other birds often tease and torment it. The eye of the Owl is extremely large, and is contained within a bony case, in form something like the frame of a watchmaker's eye-glass,—its large size and remarkable construction allowing free entrance to every ray of light ; and it consequently has the power of seeing at times when most other birds, on account of the darkness, are unable to distinguish one object from another. We may sometimes hear it at night, hooting or screaming as it goes its rounds.

When it sees a mouse in the field, it drops down upon it, and carries the little creature up in its claws to its nest. This is the way in which it feeds its young ones. The extremely downy nature of its feathers, and peculiar lightness of its bones, allow it to drop to the ground with so little noise or disturbance of the air, as to render its success in taking its prey by surprise nearly certain.

We have spoken now of the English Barn Owl, which generally weighs about twelve ounces, and has its legs covered with down, like wool.

Bishop Stanley says that there are upwards of sixty species of Owls in different parts of the world ; such as the great Snowy Owl, which, from its size and noble appearance, he calls "the very king of Owls ;" the Horned Owl; the Short-Eared Owl; the Smooth-Headed Owl; and the Supercilious Owl. This last-mentioned Owl is a native of South America, and its habits agree with the rest of its tribe. Some of the finest Owls in this country are preserved in the ancient keep of Arundel Castle, Sussex.



THE HOUSE SPARROW.

FRINGILLA DOMESTICA.

THE Common Sparrow is met with throughout the year, and finds its home among the habitations of men ; the roof of the royal palace, and of the homely cottage, being alike subject to its visits. The Sparrow, however, which is reared in the smoky city, and is so bold and familiar, affords but a poor example of the colours that adorn the rustic bird which is seen in the cottage-garden, or at the farmer's barn-door.

The nest of the Sparrow is formed under the eaves of tiles, in holes or crevices in the wall, or in any hollow place which will allow of sufficient room for the mass of hay and feathers collected for the dwelling of its family. Sometimes the nest is fixed in a tree near a house. So fond is this bird of warmth, that large

quantities of feathers are used even to line a hole for it, on the inner side of the thick thatching of a barn ; and it has been seen collecting feathers in winter, and carrying them away to its home.

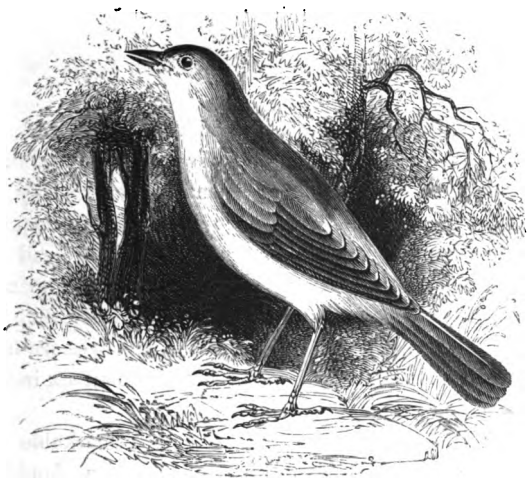
The young are fed with soft fruits, tender vegetables, and insects, particularly caterpillars ; and so great is the number of destructive insects consumed by the parents and their brood, that it is a question whether the good thus performed does not produce a balance in the bird's favour, against the grain and seeds which it requires at other seasons of the year, and of which it robs the farmer.

The great attachment of the parent-birds to their offspring, has been frequently noticed. It is recorded, that, a few years since, a pair of Sparrows which had built in a thatched roof of a house at Poole, were observed to pay their visits to the nest long after the time at which the young birds generally take flight. This unusual circumstance continued throughout the year ; and in the winter, a gentleman, on mounting a ladder, found one of the poor little birds detained a prisoner, by means of a piece of string or worsted, (part of the nest,) which had got accidentally twisted round its leg. Being thus prevented obtaining its own food, it had been sustained by the constant exertions of its parents. This simple anecdote may recall to the minds of some of our young readers many instances of tender care and attention shown them by a kind father or mother in the times of their greatest need.

The Psalmist alludes to the Sparrow, as finding a shelter in the sanctuary ;* and in another Psalm, when in affliction and solitude, he says : "I watch, and am as a Sparrow, alone upon the house-top."†

* Psalm lxxxiv. 3.

† Psalm cii. 7.



THE NIGHTINGALE.

SYLVIA LUSCINIA.

THE Nightingale is universally allowed to be the most delightful singer of all the tribe of WARBLERS. This is a very extensive tribe of birds, most of which migrate at the approach of cold weather, to warmer climates than ours. The Nightingale usually visits England in the beginning of April, and leaves it in August or September.

It has been so long celebrated for the charms of its music, that the idea of harmony seems associated with its name. It begins its song in the evening, and often continues it during the whole night. Its fondness for a particular place is remarkable. It is said that during several weeks together, it will, if undisturbed, perch

on the same tree, and from thence pour forth, evening after evening, its beautiful notes.

The Nightingale is a solitary bird, and though often heard, is comparatively seldom seen. The colour of its plumage is such as to prevent its being easily discovered on a branch. Hence it has been elegantly styled "the sober-suited songstress." The head and back are of a pale tawny colour, dashed with an olive hue; the throat and breast are of a glossy pale ash colour; the tail of a reddish brown; the eyes are large and bright. The length of the bird is about six inches. It feeds on insects.

Mr. Bingley observes, "It is very remarkable that all the gay and brilliant birds of America should be entirely destitute of that pleasing power of song which gives so peculiar a charm to the groves and fields of Europe." The same writer informs us, that a caged nightingale continues its season of singing for a much longer period than those which he heard abroad in the Spring, and that it sings more sweetly than they.

Milton calls this bird "Most musical, most melancholy."

But Coleridge says:

" 'Tis the merry Nightingale,
That crowds, and hurries, and precipitates,
With fast thick warble, his delicious notes,
As he were fearful that an April night
Would be too short for him to utter forth
His carol, and disburden his full soul
Of all its music!"

The famous anatomist, John Hunter, carefully dissected several Nightingales, and found the muscles of the organ of voice exceedingly strong. In the best singers these muscles were the strongest.



THE REDBREAST.

SYLVIA RUBECULA.

Who is not acquainted with Robin? and who does not wish to know more of his habits? Some of the earliest rhymes which we loved to hear in childhood are about this interesting little bird. We see him in the field, the wood, and the garden; and there is scarcely a hedge without a Redbreast.

The whole length of the bird is five inches and three quarters.

In summer he feeds on worms, various insects, fruit, especially cherries, and such berries as he can find. In winter he appeals to man, in his own gentle, yet confident manner, for food; for in that dreary season, when the ground is covered with snow, and worms are difficult to be got at, and there is no fruit, and berries are scarce,—he is glad to receive a welcome in a hospitable country-house, or a nice snug cottage, and to be invited

to share the crumbs which are freely thrown for him to pick up.

With his full dark eye, and sidelong turn of the head, and sagacious inquiring look, enters Robin, while the family are at breakfast : they see him with pleasure, and scarcely stir till he has gained more confidence : this he soon does, when kindly welcomed ;

“——then hopping o’er the floor,
Eyes all the smiling family askance,
And pecks, and starts, and wonders where he is.”*

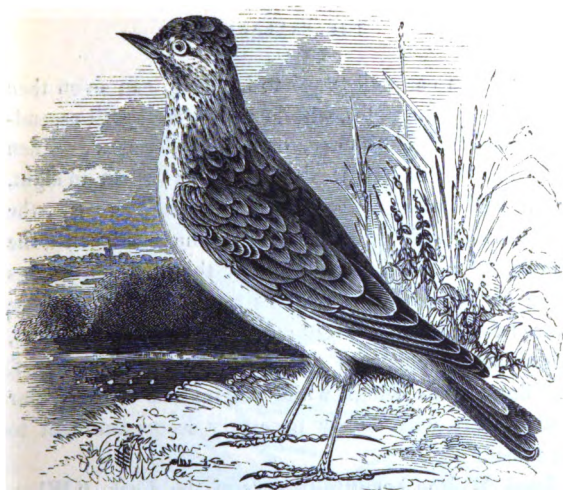
The nest of the Redbreast is formed of moss and dried grass, lined with hair, and sometimes a few feathers. The eggs are from five to seven in number, white, spotted with pale reddish brown. This bird sometimes makes a strange choice of situation for its nest. In Stanley’s History of Birds,† is an engraving of a Redbreast sitting in her nest, in the folds of one of the window curtains in a dining-room, this “household bird” having actually selected that position for rearing its helpless brood ! And who could abuse such confidence ?

As to their singing, White of Selborne tell us that “Redbreasts sing all through the spring, summer, and autumn. In the two former seasons their voices are drowned, and lost in the general chorus. In the latter their song becomes distinguishable.” The notes are sweet and plaintive, but not powerful.

Be it known, however, to our young readers, that there is one quality in the Redbreast for which he must be blamed : he is too much in the habit of fighting with other birds !

* Thomson.

† Ed. 1840, vol. ii. page 33.



THE SKY-LARK.

ALAUDA ARVENSIS.

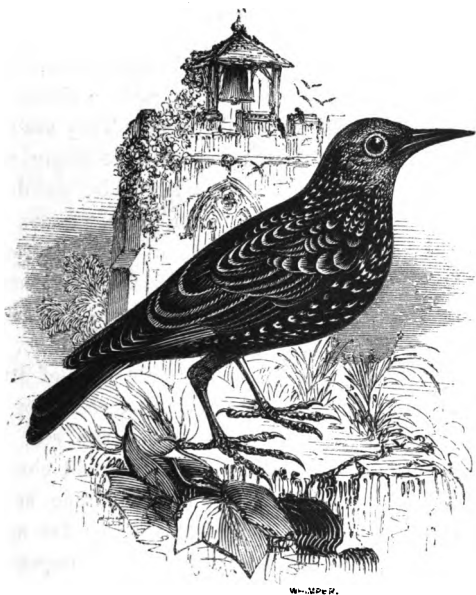
ALL the members of the Lark tribe are musical. The Wood-Lark has a sweet and plaintive tone, but its voice has neither the power nor the variety of the Sky-Lark, which is more generally known, being an inhabitant of most, if not all, the countries of Europe.

“In early spring,” says Mr. Yarrell, “its cheerful and exhilarating song, fresh as the season, is the admiration of all. The bird rises on quivering wing, almost perpendicularly, singing as he flies, and gaining an elevation that is quite extraordinary; yet so powerful is his voice, that his wild joyous notes may be heard distinctly, when the pained eye can trace his course no

longer. An ear well tuned to his song, can even then determine by the notes, whether the bird is still ascending, remaining stationary, or on the descent. When at a considerable height, should a hawk appear in sight, or the well-known voice of his mate reach his ear, the wings are closed, and he drops to the earth with the rapidity of a stone. Occasionally the Sky-Lark sings when on the ground; but his most lively strains are poured forth during flight; and even in confinement, this would-be tenant of the free air tramples his turf, and flutters his wings while singing, as if muscular motion were with him a necessary accompaniment to his music."

Izaak Walton beautifully says of the Lark, "When she means to rejoice, to cheer herself, and those that hear her, she quits the earth, and sings as she ascends higher into the air; and having ended her heavenly employment, grows then mute, and sad to think she must descend to the dull earth, which she would not touch but for necessity."

The food of this bird consists of grain, seeds of grasses, various insects, and worms. The nest is generally placed on the ground, sheltered by a tuft of herbage, or a clod of earth; the eggs are four or five in number, of a greyish-white, tinged with green, and mottled with darker grey and ash-brown. The parent-birds are strongly attached to their young: instances are known, not only of a Sky-Lark encountering danger for the sake of its tender brood, but removing the eggs to some other spot for safety.



THE STARLING.

STURNUS VULGARIS.

Few birds are more generally known than the Starling. It is an inhabitant of almost all climates, and is common in every part of England. It is a familiar bird, and easily trained. Its natural voice is strong and hoarse ; but it may be taught to repeat short sentences, and to whistle tunes.

As winter approaches, Starlings begin to collect ; and as the cold season advances, they are seen to assemble in vast flocks in the morning and evening. They may

be known at a distance by their whirling flight, forming circles as they approach. They make a chattering noise when they assemble and disperse. They are fond of society, and are sometimes seen in company with redwings, fieldfares, and even with owls, jackdaws, and pigeons. They feed chiefly on snails, worms, and insects; they also eat various kinds of grain and seed, and are said to be very fond of cherries. In a state of confinement they will eat small pieces of raw meat, or bread soaked in water.

The female Starling builds a simple nest of straw and twigs, &c. in the hollows of trees, rocks, or old walls, sometimes in cliffs overhanging the sea, and frequently in the hollows and chinks of an old church-tower, such as is represented in the engraving at the head of this description. She lays four or five eggs; and the nest is often placed so high that it is impossible for cruel boys to get at it to rob the poor bird of its young.

The Starling is indeed a sagacious bird, and shows much care and method in its proceedings. Bishop Stanley, who gives a very interesting account of a flock of these birds which came under his immediate observation, says, that a lame Starling was observed, for eight years, to return to the same nest.



THE RAVEN.

CORVUS CORAX.

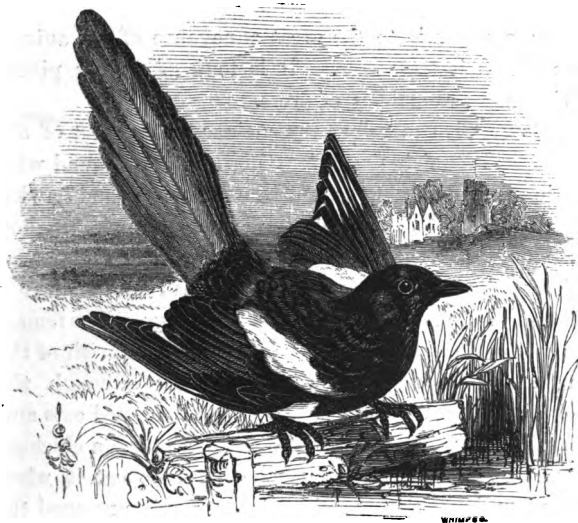
THE Raven is the largest bird of the Crow kind. It is a native of every region, and can bear heat or cold alike. "Go where we will," says Bishop Stanley, "over the face of the wide world, and the well-known hoarse croak of the Raven is still to be heard." It generally builds its nest in a high tree, and lays five or six eggs at a time. It is a bird of prey, feeding chiefly on small animals and carrion. Young rabbits, ducks, chickens, eggs, &c. are sometimes devoured by it. When brought up young, the Raven becomes very familiar, and exhibits many amusing qualities, which make mirth for a whole neighbourhood. It is a forward, sly, prying, active creature. It may be instructed in the art of fowling like the hawk, taught to fetch and carry like the spaniel, and even to speak like the parrot. The Raven is a sad thief, and is said to have been detected

in the act of secreting silver spoons in its lurking-place. It has, however, several good qualities, which often make it deservedly a great favourite. We may glean a valuable lesson of kindness and compassion from the following anecdote of a Raven, that lived many years at the Red Lion Inn, Hungerford. The story is told in the Gentleman's Magazine, and quoted in Hancock's Essay on Instinct.

"Coming into the inn yard," says the narrator, "my chaise ran over and bruised the leg of my Newfoundland dog; and while we were examining the injury, Ralph, the raven, was evidently a concerned spectator; for the minute the dog was tied up, under the manger, with my horse, Ralph not only visited him, but brought him bones, and attended on him with particular and repeated marks of kindness. I observed it to the ostler, who told me that the bird had been brought up with a dog, and that the affection between them was mutual. Ralph's poor dog after a while broke his leg, and during the long time he was confined, Ralph waited on him constantly, carried him his provisions, and scarcely ever left him alone. One night, by accident, the stable door had been shut, and Ralph had been deprived of the company of his friend the whole night; but the ostler found in the morning the door so pecked away, that, had it not been opened, Ralph, in another hour, would have made his own entrance. Several other acts of kindness were shown by this bird to dogs in general, but particularly to maimed or wounded ones."

The Psalmist, proclaiming the wisdom and goodness of God, as evinced in the works of the creation, and in His providential care of the creatures of his hand, says: "He giveth to the beast his food, and to the young Ravens which cry."* When God fed Elijah in a miraculous manner, Ravens brought the prophet meat morning and evening.† And the question in Job, "Who provideth for the Raven his food?"‡ may be answered in the words of Psalm cxlv. 15, 16: "The eyes of all wait upon Thee, O Lord, and thou givest them their meat in due season. Thou openest thy hand, and fillest all things living with plenteousness."

* Ps. cxlvii. 9, † 1 Kings xvii. 6. ‡ Job xxxviii. 41.



THE MAGPIE.

CORVUS PICA.

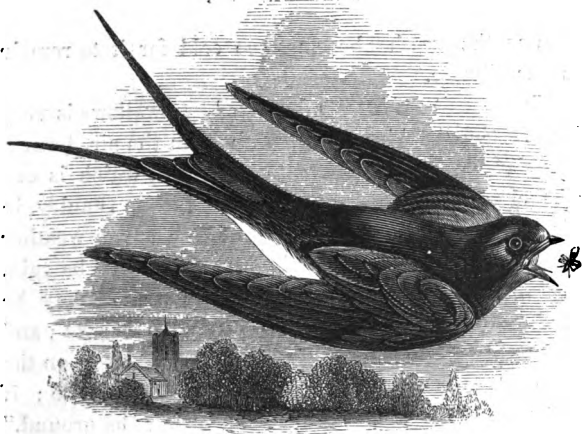
THE Magpie may be known from other birds of the Crow kind by the mixture of white and black on its breast and wings, by its long tail, and the bright and varied hue of its feathers. It is a loud, troublesome, and restless bird. It can be taught to imitate the human voice.

No food comes amiss to the Magpie. It lives on worms and insects, and even on small birds. It often perches on the back of a sheep, or an ox, picking out the insects that lodge there, and chattering all the

time, apparently to the great annoyance of the animal on which it trespasses. It is fond of hiding pieces of money and articles of dress.

Its nest is generally very curious, on account of the manner in which the parent birds fence it round with briars and thorns, to keep off the foxes, cats, and hawks, which might else assail the young brood. Bishop Stanley, in his *History of Birds*, mentions some anecdotes of a pair of Magpies which had settled near a house in the north of Scotland. He says, "The female was observed to be the more active and thievish of the two, and withal very ungrateful; for although the children about the house had often frightened cats and hawks from the spot, yet she one day seized a chicken, and carried it to the top of the house to eat it, when the hen immediately followed, and having rescued the chicken, brought it safely down in her beak: and it was remarked, that the poor little bird, though it made a great noise while the Magpie was carrying it up, was quite quiet, and seemed to feel no pain, while its mother was carrying it down."

A more favourable trait appears in the following circumstance, which occurred in Essex. "Some boys having taken four young ravens from a nest, placed them in a waggon in a cart-shed. About the same time these cruel boys happened to destroy the young of a Magpie, which had built its nest near the cart-shed; when the old Magpie, hearing the young ravens cry for food, brought some, and constantly fed them till they were given away by the boys."



THE SWALLOW.

HIRUNDO RUSTICA.

“THE SWALLOW,” says Sir Humphry Davy, “is one of my favourite birds, and a rival of the nightingale ; for he glads my sense of seeing, as much as the other does my sense of hearing. He is the joyous harbinger of the best season ; he lives a life of enjoyment among the loveliest forms of nature. Winter is unknown to him ; and he leaves the green meadows of England in autumn, for the myrtle and orange-groves of Italy, and for the palms of Africa.”

The first appearance of the Swallow is very early in April, and its departure is at the close of the summer. This bird being very rapid in its flight, and able to continue long upon the wing, is supposed to migrate as

soon as the weather becomes too cold for it to remain in our climate.

The quantity of insects devoured by Swallows is very large. Small spiders, floating about in the air, form a considerable article of food to the Swift, which is one of the sorts of the bird before us. Bishop Stanley, in his *History of Birds*, says: "It is a common weather rule, that when Swallows fly low there will be rain, but when high it will be fair. The reason may be easily guessed. They feed entirely upon insects; and the flight of insects depends, in a great degree, on the state of the air. If it is clear and dry they rise; if moist, or likely to be so, they keep nearer the ground."

Gilbert White, in his *History of Selborne*, admirably describes the process by which, in the month of May, the Window-Swallow, or Martin, builds its nest. The crust or shell of this nest is formed of mud or loam, and is tempered and wrought together with little pieces of straw, to make it tough and tenacious. Speaking of the gradual advance of the work, he says: "Thus careful workmen, when they build mud walls (informed at first, perhaps, by this little bird), raise but a moderate layer at a time, and then desist; lest the work should become top-heavy, and so be ruined by its own weight."

Allusion is made in Holy Scripture to the Swallow, as observing "the time of its coming,"* and as finding "a nest for herself" in the sanctuary.†

* Jer. viii. 7

† Psalm lxxxiv. 3.



THE COMMON GREY PARROT.

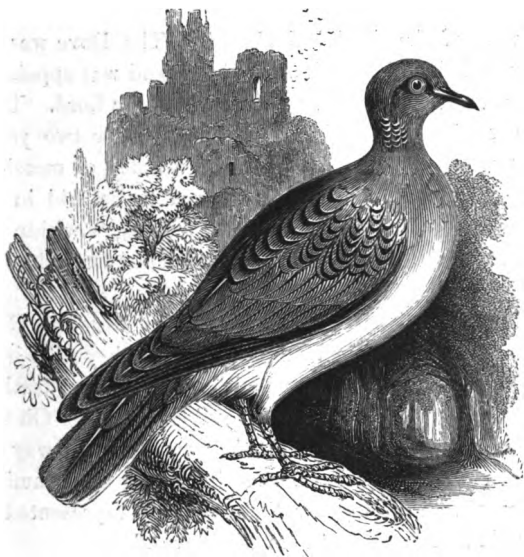
PSITTACUS ERYTHACUS.

THE species of the Parrot kind are very numerous, being widely spread over Asia and Africa, and some parts of America. The beauty of the scenery in those warm countries in which they abound is much increased by the rich varied plumage, and lively movements, of the several birds of this family, to which belong the Macaw, the Cockatoo, and the Parroquet. They live chiefly on fruit and seeds; though, when kept in a cage, they will occasionally eat both flesh and fish. The Parrot has four toes, two before and two behind, with which it climbs, and which answer the purpose of

hands for holding its food, and carrying it to its mouth, in the same manner as squirrels and monkeys use their front paws. There is another habit common to Parrots: in climbing or creeping they fasten by the bill, the upper division of which is moveable, and use their feet only as secondary aids.

The bird represented in the engraving is well known for its amusing ways in imitating the human voice. It listens with attention, and strives to repeat words ; it dwells constantly on some syllables, which it has heard, and seems to set itself tasks, endeavouring each day to recollect its lesson. The accuracy with which Parrots, after careful training, are known to utter long sentences, is surprising. Some curious instances of this are related in Bingley's *Animal Biography*, and in other books. He gives a particular description of one which had been bought by a gentleman at Bristol for one hundred guineas, and for which the purchaser was offered five hundred guineas a year, for the purpose of exhibition. It was a great talker, could whistle a variety of tunes, and beat time with all the exactness of a scientific musician. Its death was announced in the *General Evening Post* for October 9, 1802.

Dr. Goldsmith tells a story of King Henry the Seventh's Parrot, which fell out of the window of a room in the palace at Westminster, into the Thames, and at once called aloud, as it had heard people do, "A boat! twenty pounds for a boat!" A waterman passing, took it up, and saved the poor bird's life ; and, on a question arising as to the amount to be paid to the man as a reward for restoring the Parrot, it was appealed to, when it instantly screamed out, "Give the knave a groat!" Locke, in his *Essay on the Human Understanding*, relates a still more extraordinary anecdote, which is quoted by Bingley, of a conversation held with a Parrot in the Brazilian language.



THE TURTLE-DOVE.

COLUMBA TURTUR.

THE TURTLE-DOVE is one of the smaller species of this pleasing family, to which belong all the different varieties of the common pigeon, the carrier-pigeon, and many others. Its note is tender and plaintive. It is very kind and constant to its mate, and has often been adduced as an emblem of domestic affection. It builds its nest with a few dry sticks in the boughs.

The Dove is spoken of in many parts of the Bible. Noah sent a Dove out of the ark, to ascertain whether the

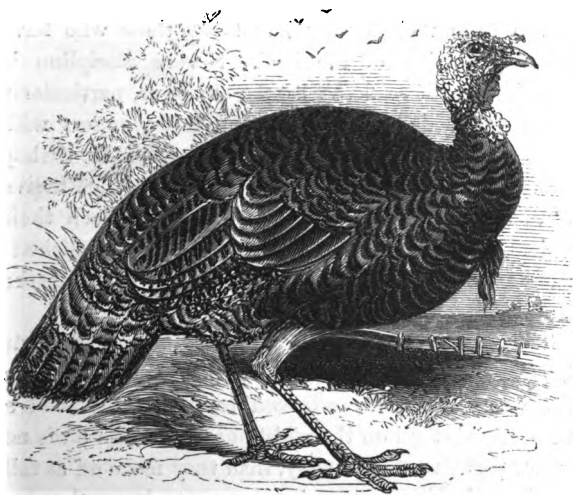
waters of the flood had abated.* The Dove was accounted clean by the law of Moses, and was appointed, on certain occasions, as an offering to the Lord. Thus, we read of "a pair of turtle-doves, or two young pigeons."† It formed one of the articles of merchandise which were improperly allowed to be sold in the Temple at Jerusalem; the traffic in them within the courts of the house of God having called forth the holy indignation of His blessed Son.‡

The Psalmist says of those who are restored by God's mercy to goodness and happiness, that "they shall be as the wings of a dove covered with silver, and her feathers with yellow gold;" and in his troubles he said, "Oh that I had wings like a dove! for then would I flee away and be at rest."§ The Jews, when lamenting the calamities they were suffering for their sins, are represented by Isaiah, as mourning "sore like doves."

In the above three passages the inspired writers have used similitudes taken from the beauty of plumage, the rapidity of flight, and the plaintiveness of voice peculiar to these birds. And as to the gentleness of their disposition, Christ, in giving his disciples rules of conduct, when in the midst of their enemies, said, "Be ye therefore wise as serpents, and harmless as doves;"|| that is, Behave with the prudence and watchfulness of serpents, but cultivate at the same time the innocence and simplicity of the Dove.

* Gen. viii. 8, 9. † Luke ii. 24. ‡ Matt. xxi. 12.

§ Psalm lv. 6. || Matt. x. 16.



THE TURKEY.

MELEAGRIS GALLOPAVO.

THIS useful bird was not known in Europe till about three hundred years ago, when it was brought from America to France. It was imported into England in the reign of Henry the Eighth, and soon became a favourite article of food, especially at the Christmas season. Turkeys are reared in great numbers in Norfolk, Suffolk, Devonshire, and some other counties, whence they are sent to the London markets.

In their wild state, in North America, Turkeys herd together in large flocks, but, like the native Indians, they are every year becoming more scarce, having been

driven from their former haunts by those who have taken possession of the land. Severe discipline is exercised in these flocks by the old birds, particularly the males, which seem to govern the youngers with great authority. "The young males," says Bishop Stanley, "are called gobblers, and are compelled to live by themselves; for if they venture to approach their seniors, they are sure of being severely punished: many are killed on the spot by repeated blows on the skull."

The hunting of birds of this species is a frequent diversion of the natives of Canada. When they have discovered a number collected together, they send a well-trained dog into the midst of them. The birds no sooner perceive their enemy, than they make off at full speed, and with such swiftness, as to leave the dog behind. He however follows, and at last forces them to take shelter in a tree, where they sit exhausted, and incapable of further exertion, till the hunters knock them down with long poles, one after another.

Their food consists chiefly of acorns, berries, and insects.

The male bird is proverbially of an angry and excitable disposition. The female is generally more mild and gentle; she is often seen with a large family around her; but, though so large and powerful a creature, she gives them very little protection against the attacks of any mischievous animal that comes in her way. She warns them to take care of themselves, but does not, like the common hen, willingly encounter danger for their sakes.



THE PEACOCK.

PAVO CRISTATUS.

THIS bird is of the order called *Gallinæ*, or Poultry, which is the most useful and valuable kind of birds; the Turkey, Pheasant, Common Hen, Guinea-hen, Moor-fowl, Partridge, Pheasant, Quail, and a few others, being of the same order.

The Peacock is more ornamental than useful; for though his flesh is of a good flavour, his form is so

elegant, and his plumage so fine, that he is generally kept with great care in the grounds of his owners in the country, for the sake of his beauty; and there he may often be seen, walking with firm and slow steps along the gravel walks, or perched upon some parapet, or on the branch of a lofty tree, while he holds up his head and spreads his richly-coloured train, as if waiting to be admired.

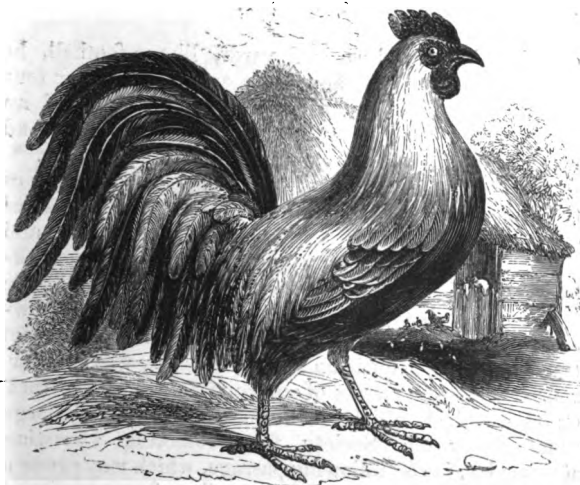
Though this bird is very beautiful to the sight, the cry which he frequently utters from some high branch, or from the roof of the house, is harsh and unpleasant. Nor do these lovely feathers remain through all the year; they are shed at certain times; and the creature when deprived of them seems ashamed, and tries to hide himself, till the returning season restores his usual attire.

Spenser, in the *Shepherd's Calendar*, in his lines on this bird, shows the unprofitableness of mere outward beauty, when it is unaccompanied by better qualities:—

“So praysen babes the peacock's spotted traine,
And wondren at bright Argus' blazing eye;
But who regards him e'er the more forthy?
Or feedes him once the fuller by a graine!”

Like other birds of the Poultry kind, the Peacock feeds on corn; his favourite food is barley; though he does not refuse to eat insects or tender plants; nor, when hungry, is he at all particular in his diet. Peacocks are found wild in Asia and Africa; but the largest and finest are met with in India.

They are mentioned in Holy Scripture as forming part of the cargoes of the fleet which carried treasures to the court of King Solomon: “Once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes, and Peacocks,” 1 Kings x. 22; 2 Chron. ix. 21. Their plumage is also alluded to in the book of Job: “Gavest thou the goodly wings unto the Peacocks?” Job xxxix. 13,



THE COCK.

GALLUS DOMESTICUS.

THIS beautiful bird is generally supposed to have been first brought from Persia. It is now sometimes met with in a wild state in the forests of India, and in some of the oriental islands. Like most of the Poultry tribe, the bird before us is bold and resolute. "We know an instance where a barn-door Cock became the terror of his little domain. Accustomed to be fed by his owner, he shortly began to express his disappointment, by very determined attacks, if his master happened to pass him without the accustomed offering. On one occasion he actually struck a piece out of a strong kerseymere gaiter, and repeated the attack in spite of some severe kicks which it was found necessary to inflict in self-defence. Nothing daunted though

occasionally kicked several yards, like a football, he would still come on as fiercely as ever for three or four times. During one of these assaults, he received an injury which lamed him for a week; but no sooner had he recovered than he became as pugnacious as ever.”*

Men have sometimes taken a shameful advantage of the temper and habits of these birds for the purposes of cruel sport. Happily for the cause of humanity, and the credit of this country, the savage diversion of cock-fighting, which was once very prevalent, is but little practised; it being now generally considered as cowardly as it is barbarous. The abominable custom of throwing at these birds on Shrove Tuesday was another reproach to some classes of our countrymen. In a tract on this subject, which was formerly circulated in large numbers by the Society for Promoting Christian Knowledge, is the following passage, which may prove a valuable lesson to those who are guilty of any species of cruelty to animals:

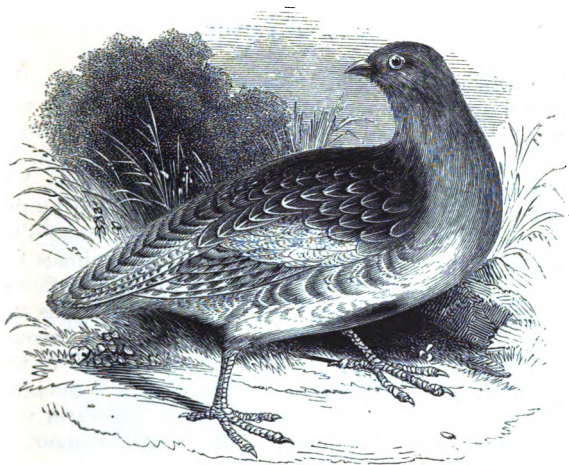
“Cowardice and cruelty generally go together; whereas generosity and humanity are the proofs of a brave and dauntless mind. It hath pleased God, of his great bounty, to give us all the creatures for our use and service, but we have not permission to abuse any of them; *A righteous man*, saith the Scripture, *regardeth the life of his beast.*”†

The courage of the Hen is chiefly shown in taking care of her chickens. She is then equally fearless and tender in defence of her helpless brood. These qualities are adduced by way of illustration, in an affecting and awful manner, in St. Luke xiii. 34. The male bird is mentioned in the New Testament, on the occasion of St. Peter's third denial. The “Cock-crowing” was one of the four watches of the Jews.‡

* Stanley's History of Birds, vol. ii. chap. iv.

† Prov. xii. 10.

‡ Mark xiii. 35



THE PARTRIDGE.

PERDIX CINEREA.

IN England, France, and other parts of Europe, there are beautiful varieties of this valuable bird. The red-legged Partridge is now completely naturalized in this country, being common in Norfolk and Suffolk. In America there are other sorts peculiar to that part of the globe.

The common Partridge, which we know so well, usually builds in corn-fields ; it sometimes, however, chooses a very different kind of nursery, as, for instance, a hay-stack. The eggs are frequently destroyed by weasels, stoats, crows, magpies, and other animals ; but when the parent-birds have their young ones safe about them, their care of them is wonderful. They lead them out to feed ; they point out to them the proper places for their food, and assist them in finding it by scratching the ground with their feet. It happens that at the

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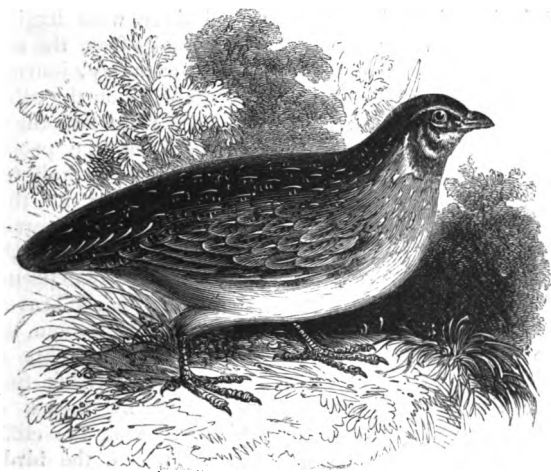
time when these little birds most require help, the several species of ants are to be easily met with; and on these they satisfy their hunger, as well as on worms and flies.

The Rev. G. White, in his account of Selborne, has some interesting remarks on the attention shown by the Partridge and other birds to their helpless brood:—"The more I reflect on the instinctive affection of animals for their young, the more am I astonished at its effects. This affection quickens the invention, and sharpens the sagacity of the brute creation. Thus a hen, just become a mother, is no longer the placid bird she used to be; but, with feathers on end, wings hovering, and clucking note, she runs about like one possessed. Mothers will throw themselves in the way of the greatest danger, to defend their young. A Partridge will tumble along before a sportsman, in order to draw away the dogs from her helpless covey. In the time of nest-building the most feeble birds will assault the most rapacious. All the swallows and martins of a village are up in arms at the sight of a hawk, whom they will persecute till he leaves the district."

What a lesson do the inferior creatures often furnish to the human race! And how inexcusable are they, who, with reason and revelation offered as their guides, unnaturally neglect their offspring in childhood and in youth, showing themselves, not only indifferent to the present support and comfort of their children, but to their religious condition as immortal beings intrusted to parental care!

To "hunt the Partridge in the mountains," is alluded to in Scripture, as customary in the time of Saul;* and in Franklin's "Constantinople" is a curious account of the manner in which Partridges are taken in the present day by the Arabs of Mount Lebanon. This, however, is a different species from ours.

* 1 Sam. xxvi. 20.



THE QUAIL.

PERDIX COTURNIX.

THIS is the smallest British bird of the poultry tribe. It is well known in Europe, but migrates, on the approach of cold weather, to a warmer climate, proceeding to the African coast, and as far as Arabia and Persia. It is a courageous and quarrelsome bird. Taking advantage of these qualities, the Athenians of old diverted themselves with the exhibition of Quail-fighting; but they abstained from eating the flesh. We, on the contrary, esteem this bird a delicacy, but never encourage it to fight.

Modern travellers illustrate the account given in the Scriptures of the vast numbers of Quails, and the mode

of drying them for food. "And there went forth a wind from the Lord, and brought Quails from the sea, and let them fall by the camp, as it were a day's journey on this side, and as it were a day's journey on the other side, round about the camp, and as it were two cubits high upon the face of the earth. And the people stood up all that day, and all that night, and all the next day, and they gathered the Quails; he that gathered least, gathered ten homers; and they spread them all abroad for themselves round about the camp."*

After referring to this passage, the reader will peruse with interest the following extract from Stade's Travels in Turkey:—"Near Constantinople, in the autumn, the sun is often obscured by the prodigious flights of Quails, which alight on the coasts of the Black Sea, near the Bosphorus, and are caught by means of nets spread on high poles, planted along the cliffs, some yards from its edge; against which, the birds, exhausted by their passage over the sea, strike themselves and fall. In October 1829, the Sultan sent orders to his admirals to catch four-hundred dozen; in three days they were collected, and brought to him alive, in small cages."

The Egyptians take them at harvest-time by thousands in nets, and, having stripped off their feathers, dry them in the burning sand, after which they are sold at but one penny a pound. The object of the Israelites, therefore, in spreading them around the camp, appears to have been to dry them.

The Psalmist, in his exhortation to praise God for his providential care of the Israelites, by feeding them in the wilderness, says: "The people asked, and He brought Quails, and satisfied them with the bread of heaven."†

* Numbers xi. 31, 32.

† Psalm cv. 40.



THE OSTRICH.

STRUTHIO CAMELUS.

THESE large birds are seen in flocks in the sandy deserts of Africa and Asia, and have sometimes been mistaken at a distance for cavalry. The Ostrich is different from birds in general in its manners and habits. Its wings are too small to raise it from the ground ; its neck is covered with hair ; its voice is a kind of mournful lowing ; and it grazes on the plain with the zebra and other beasts.

Ostriches frequently do great injury to the farmers in the interior of Southern Africa, by entering their fields in flocks, and destroying the ears of wheat so

completely, that in a large tract of land it often happens that nothing but the bare straw is left behind.

Though the wings of the Ostrich are small, they are very useful in increasing its speed. When the wind blows in the direction which it is taking, it always flaps them.

The Arabians hunt it on horseback for its plumage, beginning their chase with a gentle gallop. It then continues advancing, but not very rapidly, until it is worn out with fatigue ; when, finding that it cannot escape, it either turns in despair on the hunters, or hides its head, and meets its fate.

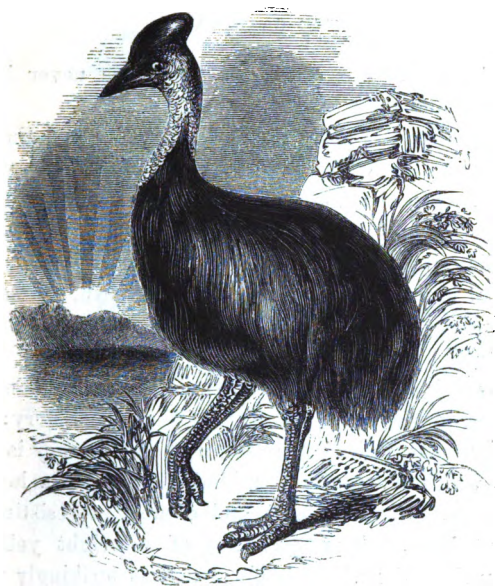
Ostriches may be tamed ; and few creatures are then more useful than they. The feathers are very valuable ; the eggs are used for food and ornament ; their skins for leather ; their flesh is eaten ; and they are moreover sometimes employed as horses. During Dr. Adamson's residence at Podor, a French factory on the southern bank of the river Niger, he saw a large Ostrich so tame, that two little black children were placed both together on its back, and carried by it several times round the village. It afterwards carried two men with great speed.

The Ostrich is gentle towards persons to whom it is accustomed, but fierce to strangers. Its powers of digestion are wonderful. It will swallow with voracity, rags, leather, wood, iron, or stone.

Three Ostrich-feathers, with the legend *Ich Dien*, or *I serve*, form the crest of H.R.H. the Prince of Wales. The origin of this was as follows. The king of Bohemia, who fell at the battle of Cressy, A.D. 1346, had three Ostrich-feathers in his crest, with the above motto. These were assumed by Edward the Black Prince of Wales, and have been worn ever since by his successors, in memory of his triumph.

Reference is made in the Bible to the Ostrich.*

* Job xxxix, 13—17. Sam, iv. 3.



THE CASSOWARY.

CASUARIUS EMU.

THIS bird is in many respects like the ostrich ; the body is heavy, and the wings are so short, that it cannot raise itself from the ground to fly. It will swallow almost any thing which is offered to it, and which is not too large to pass down its throat. It is fond of fruit, vegetables, and eggs, and consumes large quantities of food. Cassowaries are found in the south-eastern parts of Asia, and in Africa ; but as they bear the climate of Europe much better than most animals from hot countries, many of them have been brought

to this part of the world, but they have never bred here like the Emu.

Bishop Stanley says of the Cassowaries and Emus; "They are lively birds, and frisk and dance away when roused, when they look very like a woolly cushion on the top of two poles. Like the ostrich they are stupid, and like it also run with amazing swiftness, so much so, that it is very difficult to run them down, unless by the swiftest dogs, and by them only in an open country."

The following animated description of the Cassowary is given in Mavor's "Elements of Natural History:"—

"The most remarkable part of the Cassowary is the head, which is armed with a kind of helmet of a horny substance, extremely hard, and capable of resisting a violent blow. The eyes are of a bright yellow, and in short the whole conformation is strikingly majestic. It has the head of a warrior, the eye of a lion, the defence of a porcupine, and the swiftness of a courser. Yet though endowed with powers apparently formidable for its own defence, it never attacks other birds, and when pursued, it either kicks like a horse, or overturns its assailant by running against him, and treading him under foot."

There was one a few years since in the collection at Exeter Change. This bird was driven several times every day out of its cage by the keeper, in order to be shown to the visitors. It ran in an unconcerned manner about the room, allowed strangers to handle it, and, after showing itself off for a short time, marched quietly into its cage again.



THE EMU.

CASUARIUS NOVÆ-HOLLANDIÆ.

THESE birds are widely spread over the southern part of New Holland, and the neighbouring islands. They are met with at Port Phillip, and King George's Sound. Their food consists almost wholly of fruits, roots, and herbage ; they are quite harmless, except when attacked. The length of the legs, and the powerful muscles in the thighs, enable this bird, like the ostrich, to run very swiftly ; and as it is exceedingly shy, it is not easily overtaken, or brought within gun-shot.

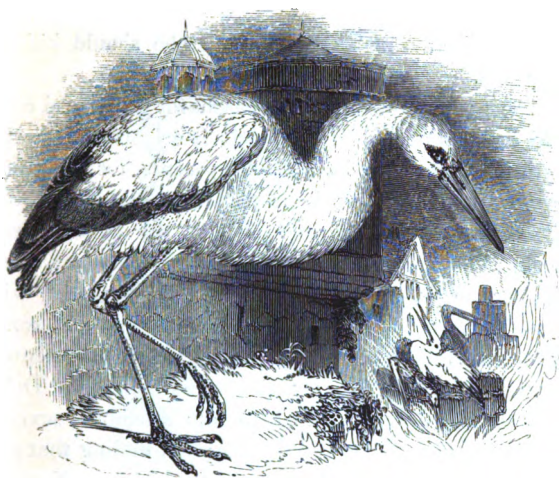
It is very like the ostrich in form and habits, but differs from it in some important respects. The feathers with which its body is covered have more the appearance of hair, or rather thin strips of whalebone: its wings are also much shorter, and, as well as the tail, are destitute of those beautiful feathers with which the ostrich is adorned.

The Emu is sometimes coursed for sport, being pursued by well-trained dogs, which run up abreast, and make a sudden spring at the creature's neck. This, however, is a cruel amusement. We have no right to seek our pleasure in a dumb creature's pain. Dogs, in general, are afraid of attacking the Emu, partly on account of the severe injuries which it is able to inflict by striking out with its feet.

Some parts of this bird are good for food. The eggs are large. Great quantities of them are eaten by the natives of Australia during the hatching season.

There are fine specimens of the Emu in the gardens of the Zoological Society. The following account of the hatching of a brood of young birds of this species is extracted from Jesse's "Gleanings in Natural History:"—

"The only instance I have met with in which the hen-bird has not the chief care in hatching and bringing up the young, is in the case of the Emus, at the farm of the Zoological Society, near Kingston. A pair of these birds have now five young ones: the female at different times laid five eggs in the pen in which she was confined. These were collected in one place by the male, who rolled them gently and carefully along with his beak. He then sat upon them himself, and continued to do so with the utmost assiduity for the space of nine weeks, during which time the female never took his place, nor was he ever observed to leave the nest. When the young were hatched, he alone took charge of them, and has continued to do so ever since."



THE WHITE STORK.

CICONIA ALBA.

THE STORK is a bird of the order called *Waders*. The legs in this class are long, and adapted for wading ; while their bills are long and sharp pointed, as if formed for the purpose of searching the bottoms of pools for food.

The Stork, which in some places is tame and familiar, walks about the streets, and is very useful in clearing them of filth : it also removes reptiles from the fields. On account of these qualities it is much valued in Holland ; and we find from ancient writers that some nations not only protected them by their laws, but even had a superstitious veneration for them. The Mahomedans hold them in great esteem ; and the Egyptians

would look on a person as profane who should kill or hurt one.

There were probably other reasons for the regard with which this bird was treated. It is celebrated for the dutiful attention it pays to its parents, for its kindness to its mate, and for the care it bestows on the education of its offspring. When the young birds begin to flutter out of the nest, the mother bears them on her wings, guards them from danger, and will sometimes perish rather than forsake them. A story is told in Holland, the subject of which is represented in our engraving, namely, that when the city of Delft was on fire, a female Stork in vain attempted several times to carry off her young ones; and finding that she was unable to effect their escape, suffered herself to be burned with them. However this may be, the bird before us has often been referred to as a pattern of those virtues which chiefly promote domestic peace. One of the Roman poets speaks of a temple raised to CONCORD, "where the clamorous Stork is heard." *

These birds are inhabitants of no particular part of the globe. They are birds of passage, migrate in large flocks, and show great exactness in the time of their departure from Europe to more genial climates. Allusion is made in Holy Scripture to their sagacity in observing times and seasons, as superior to that of thoughtless man, who is so apt to be regardless of the warnings given him: "Yea, the stork in the heaven knoweth her appointed times; and the turtle, and the crane, and the swallow, observe the time of their coming: but my people know not the judgment of the Lord."†

* Juvenal.

† Jer. viii. 7.



THE COMMON HERON.

ARDEA CINEREA.

BIRDS of this species are most common in England, France, and Holland. They are found in Russia and Poland; and not only in Europe but in other parts of the world, they being birds of passage.

The common Heron is upwards of three feet in length; and its wings expanded measure about five feet. It does not, however, weigh more than three pounds and a half; and it can therefore mount very high in the air. In winter, when its food is scarce, the bird becomes so thin that it seems to be little else than feathers and bones.

It feeds indiscriminately on all kinds of fish, as well in the sea as in rivers. In seeking its prey, it wades gently into the water, and stands in it up to its knees,

or resting on one foot, quietly watching the approach of fish, which it generally swallows whole. The time of fishing is chiefly before sunrise, or after sunset. Herons are sometimes shot when they are in the act of fishing. Another mode of taking them is to place a fish on a hook at the end of a line, in parts which they are known to frequent : the bird is hooked on its seizing the fish. When falconry was in fashion, flying the hawk at the Heron was very frequent.

Heron build their nests on lofty trees, and more especially oaks, near to streams and marshes. The nest is large, formed of twigs, dry herbs, and reeds, the inside being lined with feathers and wool. In this the female places her eggs, three or four in number, about the size of those of the common hen, but longer, and of a greenish brown colour. The male bird flies abroad in search of food, while the female attends to her young brood at home. Both parents assist in providing their young with food, and carry them plenty of fish to eat, until they are able to fly. As soon as the young ones can obtain their own living, they are driven from the nest, and are obliged to go in search of food for themselves.

Having noticed this provision, according to the order of nature, we may introduce, for the benefit of some of our readers, the scriptural rule, "that if any would not work, neither should he eat;"* for by instances such as these, young persons may be reminded of the obligation they are under "to learn and labour truly to get their own living," and by honest industry to relieve their relations as soon as possible of the burden of supporting them.

The ancient Jews counted this bird unclean, it being enumerated among the creatures which might not be eaten.†

* 2 Thess. xi. 11.

† Lev. xi. 19.



THE SCARLET IBIS.

IBIS RUBRA.

THIS is a most splendid bird when in full plumage. It is a native of the tropical regions of America. When fully grown it measures about twenty or twenty-four inches in height. The young, when first hatched, are covered with a blackish down, which soon changes to an ash colour, and at length becomes nearly white. After the second moulting, the plumage assumes a tinge of red, which gradually becomes deeper. The brilliancy increases with the age of the bird. In its native state it frequents the sea shores and mouths of rivers, feeding upon insects, and small fish.

The connexion of one species of this bird, though not of the scarlet kind, with the history of ancient Egypt, renders it extremely interesting; it having

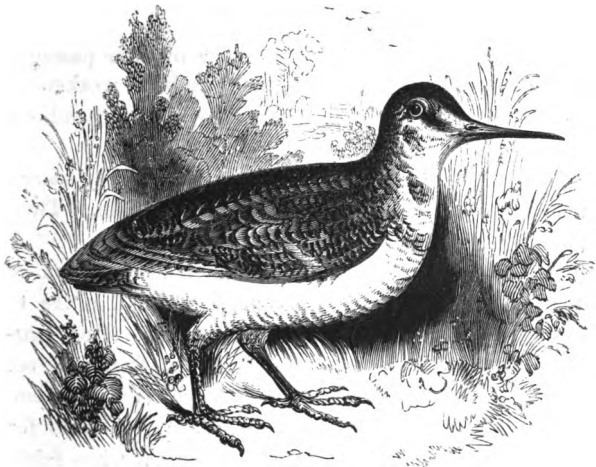
been an object of idolatry three thousand years ago in that superstitious country, where it was embalmed with the most scrupulous care. There was much uncertainty respecting the ancient Ibis, till Bruce, the traveller, showed that a living bird, common on the banks of the Nile, was a descendant of the bird represented on the temples and obelisks of antiquity, or preserved in a mummy state in the Egyptian tombs. M. Cuvier, after a careful anatomical comparison of the ancient mummies with recent specimens, established the truth of this assertion, and gave greater interest and importance to a creature which had remained unnoticed, after having for centuries been adored by the people of Egypt.

Probably, a principle of gratitude induced them to pay divine honours to a bird which was so useful in destroying the serpents, frogs, locusts, and vermin, that infested their country; while a motive of fear led them to worship their enemy the crocodile.* Bishop Stanley, however, speaking of the worship paid by the Egyptians to the Ibis, says, "We are inclined to attribute this respect for it to another cause; namely, a fancied resemblance to the moon, whether from the curved and crescent shape of its beak, or from the contrasted colours of black and white, which, in the opinion of an ancient writer,† made it appear as if marked with a crescent. Now, the moon, as well as the sun, was a known object of worship amongst many of the heathen nations, and more especially the Egyptians."

While we wonder at the blindness of their "foolish hearts,"‡ we should recollect, that our ancestors in Britain were once worshippers "of them which by nature are no gods,"§ and be thankful that, by the grace of the God and Father of our Lord Jesus Christ, we have been "called out of darkness into His marvellous light."||

* Juv. Sat. xv. 2, 3.
§ Gal. iv.

† Plutarch. ‡ Rom. i. 21.
|| 1 Pet. iii. 9.



THE WOODCOCK.

SCOLOPAX RUSTICOLA.

THE flesh of this bird has a very fine flavour ; and the Woodcock is, on this account, often sold at a much higher price than a bird of a larger size. It is not in general a native of Great Britain, but comes over to this country from Norway, Sweden, Lapland, or some other Northern region, as soon as the frost begins in those cold parts of the world. These birds arrive among us at about the end of October, but not in great numbers till November and December. Their first appearance on land is usually on the western shores of Ireland, and on the islands of Scilly, to the west of the Land's End, Cornwall. It does, however, occasionally breed in England.

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When they have had bad weather in their passage, they are sometimes found so much tired and weakened, as to allow themselves to be taken with the hand, on their alighting near the coast.

They live on worms and insects, which they search for with their long bills in the soft ground. They feed principally by night.

Most of them leave this country about the end of February, or the beginning of March, and retire to the wild solitudes which they had quitted. They proceed to the coast; and if the wind be fair, they set out at once in large flocks; but if it be against them, they wait in the neighbouring woods and thickets for a favourable change. It is estimated, that when fairly on the wing, they travel at the rate of from one hundred and twenty to one hundred and fifty miles per hour.

In the means and facilities of flight possessed by these birds strong proofs are afforded of the wisdom and power of the divine Creator. His provision for the flight of birds awakens the attention and admiration of every thoughtful and well-disposed mind. "If," says Dr. Roget, "the excellence of a mechanic art be measured by the difficulties to be surmounted in the attainment of its object, none surely would rank higher than that which has accomplished the flight of a living animal. No human skill has yet contrived the construction of an *automaton*, capable, by the operation of an internal power, of sustaining itself in the air, in opposition to gravity, for even a few seconds, and far less of performing in that element the evolutions which we daily witness."



THE FLAMINGO.

PHENICOPTERUS RUBER.

THIS is a very extraordinary bird. Its legs are of a great length, and so slender that at a little distance the one leg on which it usually stands is not easily seen, and the bird seems stationary in the air. It hatches its eggs, sitting astride on a nest of raised earth, as its long legs prevent its adopting any other position.

The common species, represented above, is sometimes more than six feet in height, and above four feet long from the bill to the tail. Its plumage varies in colour, according to the age of the bird. In the third year, when it is full-grown, the back is of a purple red, and the wings of a bright rose colour.

Bishop Stanley, in his account of the Flamingo, notices the "almost broken and deformed appearance of the beak," and the manner in which the creature feeds, by turning its head, and scooping up the soft substances on which it preys, using the upper mandible as a sort of spoon.

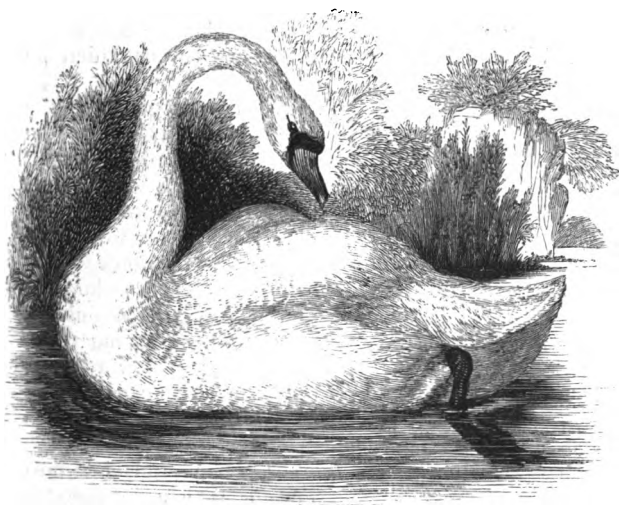
These birds were once known on the coasts of Europe, but are now chiefly found in America, and certain parts of Africa. In some of the wild and solitary tracts of America, they live in a state of society, which cannot but excite our wonder. It is said that they are always met with in flocks, and that they form in file for the purpose of fishing, having quite a soldier-like appearance. They are accustomed to establish sentinels for common safety; and whether reposing in ranks, or fishing, one of them always stands on the watch with his head erect. If any thing alarms him, he sets up a cry like the sound of a trumpet, when the flock moves off with great rapidity, but in a settled order of flight.

The ancient epicures admired the flesh of the Flamingo, especially its tongue; but the tongue is said to be oily, and of an unpleasant flavour to modern palates. A Roman poet mentions this bird, under the name of *Phœnicopterus*, as a delicacy served up at the tables of the great in his day. His old English translator, for want of the word, Flamingo, quaintly styles it "the huge Crimson-wing."*

Attempts have been made to domesticate this bird, but in our climate it soon languishes and dies. One of them lost a leg by an accident, and afterwards walked with the other, using its bill and neck like a crutch.

The down of the Flamingo is useful. The Indians make bonnets of the feathers. The Sardinians form the bone of the leg into a flute.

* Holyday's Juvenal.



THE TAME SWAN.

CYGNUS OLOR.

THIS graceful creature is one of the large tribe of *Natatores*, or swimming birds, and is distinguished from the rest of the family to which it belongs by the great length of its neck. There are very few birds which exceed it in size. It lives almost always upon the water, and prefers open lakes. It feeds chiefly on water-plants, which it is enabled to reach by means of its long neck; for it seldom if ever plunges its whole body beneath the surface. It also eats frogs, snails, and several kinds of insects. It is fond of bread, biscuit, and all kinds of grain, and in winter is chiefly kept on that kind of food which is given to ducks and geese. There seems good reason to suppose that it never feeds on fish. The fish-ponds to which these birds

are confined do not suffer any diminution from their presence; and Mr. Yarrell states that he has never found fish in the stomachs of any Swans which he has dissected.

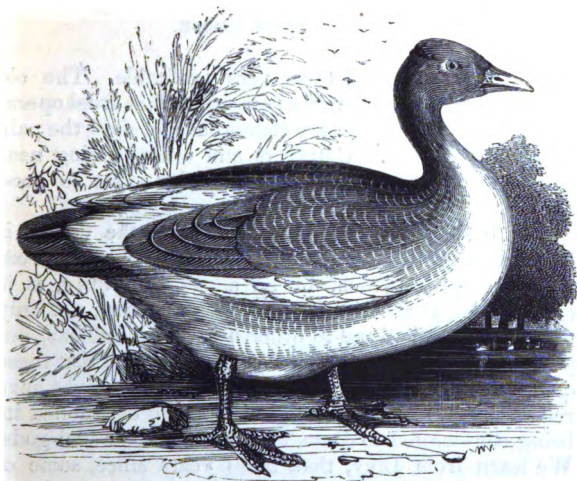
When kindly treated the Swan is as gentle in its temper and habits as it is majestic and elegant in form; but when annoyed, and compelled to defend itself, it is a powerful enemy. Its large size, and vast muscular power, give it a great advantage in this case. Though it never molests the small water-fowl that inhabit its domains, it is said to have sometimes fought and repelled the eagle, when that bird has shown a disposition to disturb it. Bingley gives an account of a Swan which, while sitting on her eggs among reeds at the water's edge, saw a fox swimming towards her. She instantly darted into the water, and having kept him at bay for some time, drowned him, and then returned to her nest.

The Swan is a good mother. She builds her nest of twigs and reeds, and lines it with a comfortable coating of feathers. As soon as the young swans, which are called cygnets, are hatched, they are carried by both parents from their nest on the bank to the water, and for two or three weeks afterwards are borne upon their backs, or placed for warmth and shelter beneath their wings.

Swans are met with in a wild state in almost every country of Europe. They are birds of passage, and notwithstanding their weight and size, travel with vast speed through the air.

Black Swans are found on the western coast of New Holland, as well as in New South Wales and Van Diemen's Land. Some fine specimens are in the gardens of the Zoological Society.

A Black Swan was among the ancients a proverbial expression for a great rarity,—a prodigy that the world seldom or never saw. This proverb has quite lost its meaning.



THE COMMON GOOSE.

ANAS DOMESTICUS.

THE order of *web-footed* birds consists of those which are evidently calculated for swimming, having their toes connected with a web extending nearly to the nails ; and in birds of this family we may observe the wonderful way in which different animals are fitted for their appointed modes of life. Thus the foot of a bird is so full of contrivance and fitness for its purpose, as to show the wisdom of the great Creator.

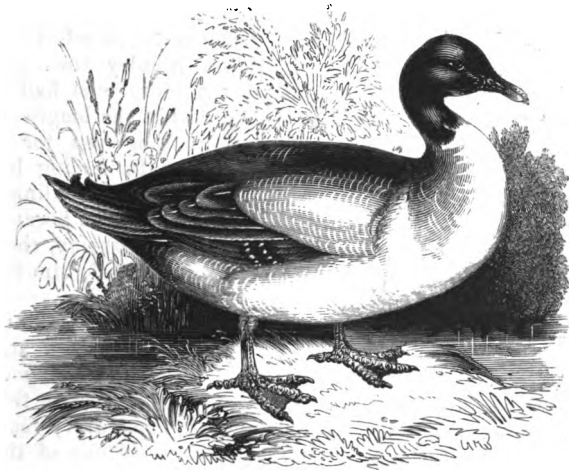
Our common tame Goose is of great service to man in various ways. It is valuable as an article of food, while its quills and feathers serve many important uses. Geese are kept in vast quantities in the fens of Lincolnshire, and are sent from thence to London, when ready for market, in droves of from 2,000 to 9,000. Persons who keep flocks of these birds in the country generally pluck them for feathers and quills four or five times in

a year, and thus find them very profitable. The old geese submit with tolerable patience to this cruel operation, but the young ones are clamorous and show the pain which they suffer. Cottagers and others, living near commons, can turn the rearing of a few geese to good account.

But besides the pecuniary worth of the Goose, it has certain qualities which ought to have secured it from the contempt in which, for its alleged stupidity, it is often held. It shows constancy and affection, not only to its own species, and to other birds and animals, but particularly to man; and it is not improbable that these qualities, which were known to the ancients, might have rendered it an object of high esteem, and occasioned its being consecrated to Juno, the queen of their idol gods. We learn from Livy, that, 2230 years since, some of these birds saved the citadel of Rome from the invasion of the Gauls, who during the night had nearly succeeded in obtaining an entrance within the walls. The geese commenced a loud cackling, and awakened the Romans in time to force the enemy to retire.

Geese are migrating birds, and can remain much longer on the wing than we are apt to imagine, considering their apparently heavy gait. The tame geese belonging to several Cossack villages near the river Don in Russia, leave their homes in March or April, as soon as the ice breaks up, and take flight in a body to the more northerly lakes, the nearest of which must be five or six hundred miles off. In the beginning of the winter they return with their young broods to their respective dwellings.

Derham, speaking of the migration of birds, says:—"This leads me to another thing remarkable in this act of migration; and that is, that those unthinking creatures should know what way to steer their course, and whither to go. What but the great CREATOR's instinct should ever move a poor foolish bird to venture over vast tracts of land, but especially over large seas?"



THE COMMON DUCK.

ANAS BOSCHAS. (Domestic variety.)

THIS is one of the tribe of Swimmers. There are many species of the Duck; but the bird represented above is so familiar to all that it is not necessary to describe it. It appears, from the statements of good naturalists, that cottagers and others who rear ducks would do well to prevent the young ones from swimming until they are more than a month old, water not being necessary for them for some time; and that the ducklings should be fed upon barley-meal, or curds, and kept in a warm place at night.

Of all people in the world, the Chinese are said to be the most skilled in the management of poultry, particularly of ducks; many persons at Canton earning their livelihood merely by bringing them up: some buy the eggs and trade with them; some hatch them in ovens, and others attend on the young ones.

Ducks, like geese, have a strong sense of affection; in illustration of which, Bishop Stanley tells the following pleasing anecdote:—"A clergyman had a very fierce and noisy house dog, within the length of whose chain it would have been dangerous for a stranger to have ventured; but, notwithstanding his apparently savage disposition, a brood of ducklings, reared in the yard in which he was kept, soon became so fond of him, that whenever, from his barking, they apprehended danger, they would rush towards him for protection, and seek shelter in his kennel."

He concludes his history of Ducks with an account of the decoys, which are formed of wickerwork and netting, and by means of which, through the help of tame birds, called Decoy Ducks, and dogs trained for this purpose, vast numbers of wild fowl are taken every year.

Ray, in his great work, mentions it as one of the instances of the wisdom of God in His works, that the several tribes of animals should, in a very early stage of their existence, know their own powers and places of food; as for example, "that such creatures as are whole-footed, or fin-toed, viz. some birds and quadrupeds, should be naturally directed to go into the water, and swim there, as we see ducklings, though hatched and led by a hen. If she brings them to the brink of a river or pond of water, they presently leave her, and in they go, though they never saw any such thing done before, and though the hen clucks and calls, and doth what she can to keep them out."

He alludes in another part to the various kinds of "voices" of the common hen, which she utters on several occasions and under different circumstances; such as when she is leading her chickens; calling them to her for food; or, "upon sight of a bird of prey, or apprehension of any danger, bidding them, as it were, to shift for themselves," &c.



THE PELICAN.

PELECANUS ONOCROTALUS.

THIS bird is one of the tribe of Swimmers, and is completely web-footed. It is found in Asia and Africa, and affords another illustration of the wonderful works of God in the creation! The bill of the Pelican, frequently sixteen or eighteen inches long, has attached to its lower portion a pouch, which extends for some distance down the fore part of the neck. The fish on which the creature preys are immediately stowed away in this pouch in sufficient quantities for a meal, not only for itself, but often also for its family. Having collected its store, it retires to some neighbouring rock, or other solitary place, to

satisfy its craving appetite. The pouch, when stretched to its utmost, contains from two to three gallons of water. The old birds are by its means enabled to bring home food for their young, emptying it into their throats by pressing the bill upon the breast—an action which has given rise to the pleasing, but erroneous story of the Pelican feeding its young with its blood. In the same manner the males feed the females when the latter are sitting on the eggs.

Some fine specimens of this interesting bird are to be seen in the Zoological Society's collection. "The white, or common Pelican, is almost entirely white when in its adult state; the quill-feathers, however, which are scarcely visible when the wings are closed, are black; and the whole plumage, as the bird advances in age, exhibits a slight tinge of flesh-colour, which is sometimes mixed with a shade of light yellow. The bill is, at this period, of a dull lead colour on the sides of the lower mandible, and along the middle line of the upper, which is yellowish in the intermediate part, and reddish at the edges, the hooked tip especially becoming of a bright red. The iris is deep brown; the naked part of the cheeks flesh-coloured; the pouch of a light straw colour; the legs and web dingy yellow, with somewhat of a leaden cast; and the claws black. On the greater part of the head and neck the plumage is nothing more than a short, close, even, down, gradually passing into feathers, and forming on the back of the head a kind of tuft which falls downward over the hinder part of the neck."*

The Pelican is mentioned in the Old Testament as an unclean bird,† which might not be eaten by the Jews. It is a bird of lonely habits. David, in his afflicted and solitary state, compares himself to a "Pelican in the wilderness."‡

* "The Gardens and Menagerie of the Zoological Society delineated."

† Leviticus xi. 18.

‡ Psalm cii. 6.



THE CORMORANT.

CARBO CORMORANUS.

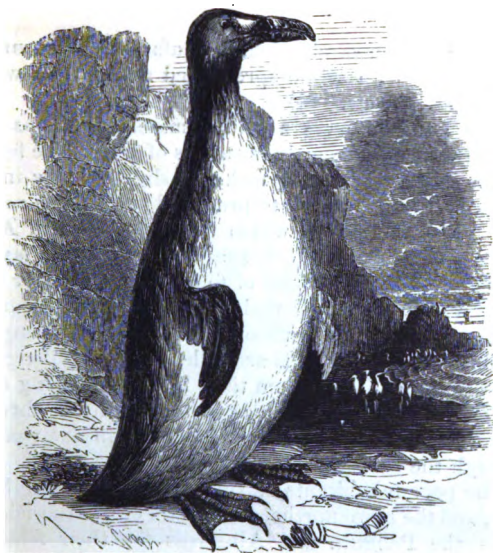
THESE birds are found on many of our sea-coasts, and are common in the isles of Scotland. They build their nests on the highest parts of the cliffs which hang over the sea. They are proverbial for their voracity, each Cormorant devouring three or four pounds of fish a-day, which is about half the average weight of the bird. Like most birds living on fish, however, its digestion is extremely rapid, and it requires a pro-

portionably larger supply of food. If deprived of this, it soon dies. On the Western coast of the Hebrides, in severe gales, when no fish are to be got, these poor birds are to be seen huddled together in their caves and crevices, perishing with hunger.

The talent for fishing possessed by some of this species is turned to good account by the crafty Chinese fisherman, who fastens an iron ring round the bird's neck, so that it cannot swallow; thus prepared, he sits quietly in his boat till he sees a fish, when the bird is tossed into the water; it dives, and presently rises with the fish, which is seized upon by the boatman, who then waits for another chance.

Bishop Stanley mentions a couple of Cormorants which were kept as "pets," and were found to be quiet enough, except when pressed by hunger. One day a gentleman's servant, who went in to look at them, had on a pair of red plush breeches, which instantly caught their attention. These they probably mistook for raw meat, which was their ordinary food: they consequently made such a furious charge upon the poor young man, that the owner was obliged to attack them with a stick, and even then could not keep them off without difficulty. They were at last sent away for killing a favourite pointer.

We cannot conclude our notice of this remarkable bird without calling attention to the peculiarity of its leg and foot, and their fitness to its mode of living. This bird has to seek its food beneath the surface of the water. Its erect form, and the backward position of its legs, must greatly assist it in diving after the fishes on which it feeds. Its four toes are webbed and connected together, presenting an example of a completely webbed-foot, which gives it great velocity under water: and its leg is so flattened at the sides, that the front edge, which cuts the water, is scarcely thicker than the blade of a carving knife.



THE PENGUIN.

ALCA IMPENNIS.

THIS bird has such small and short wings that it would in vain attempt to fly. But these wings, though small, are of great use to it when it seeks its food. The Penguin is fond of fish, and moves with amazing swiftness, by help of its wings, under water, in search of its prey. It passes the chief part of its life on or in the sea; and, being usually very fat, it does not suffer from remaining a long time in a wet and cold state.

When on land, flocks of these birds may be seen walking upright in a formal, stately manner, holding their heads high. They look, from a little distance, like a company of soldiers. As the feathers on the breasts of some of these species are beautifully white, with a line of black running across, they have some-

times been compared, when seen afar off, to a number of children with white aprons tied round their waists with black strings.

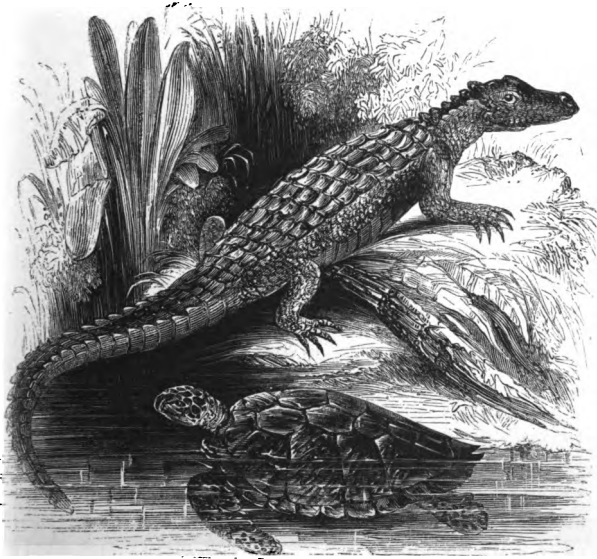
The Penguin loves a cold climate. It sleeps very soundly and is extremely tenacious of life. The female lays a single egg. She makes a slight hollow in the earth, just large enough to prevent her egg from rolling out. The manner in which the Penguins and Albatrosses, with a few other species of sea birds, lay out together a piece of ground of four or five acres, for their nests, and superintend their charge, is fully described in Bishop Stanley's work on Birds.* Some Penguins in the South Sea Islands are called Hopping Penguins, and Jumping Jacks, from their habit of leaping quite out of the water, sometimes to the height of three or four feet, on meeting with any check in their course through the sea.

The poor inhabitants of the rugged shores of Scotland, and the more northern Shetland or Ferroe islands, value the Penguin and Albatross for their feathers, skin, oil, and eggs; and in order to lay in a store of these articles for winter use, run many risks, and encounter serious hardships. There, we are told, this "dreadful trade" is carried on in all its horrors. The favourite resort for sea fowl is a tremendous precipice about 1,300 feet high, formed by the abrupt termination of Conachan, the most elevated hill in the island of St. Kilda, and supposed to be the loftiest precipitous face of rock in Great Britain. The people of the island, young and old, venture in search of birds to various points, crevices, and ledges of rocks, one false step from which would be certain death, and upon which an unpractised eye can scarcely look without shuddering.

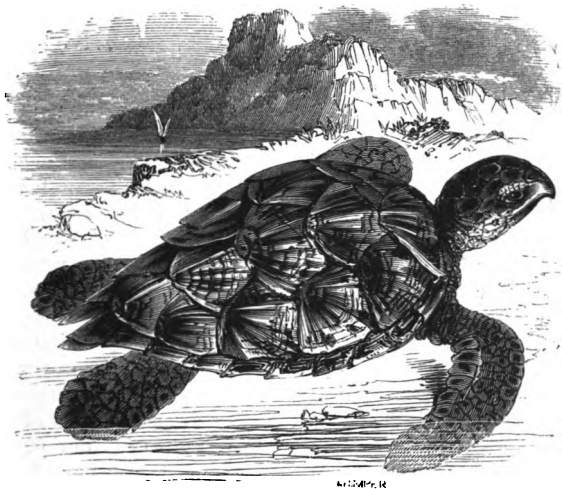
——— "I'll look no more
Lest my brain turn, and the deficient sight
Topple down headlong."

* Vol. ii. p. 276, &c. Edit. 1840.

REPTILES.



“ The REPTILIA, according to most Naturalists, include five orders, the *Testudinata*, or Tortoises and Turtles; the *Enaliosauria* of Conybeare, to which the gigantic fossil genera, the *Ichthyosaurus* and *Plesiosaurus*, belong; the *Loricata*, or Crocodiles and Alligators; the *Sauria*, or Lizard tribe; and the *Ophidia*, or Serpents.”—*Bell's History of British Reptiles*.



THE TURTLE.

CHELONIA IMBRICATA.

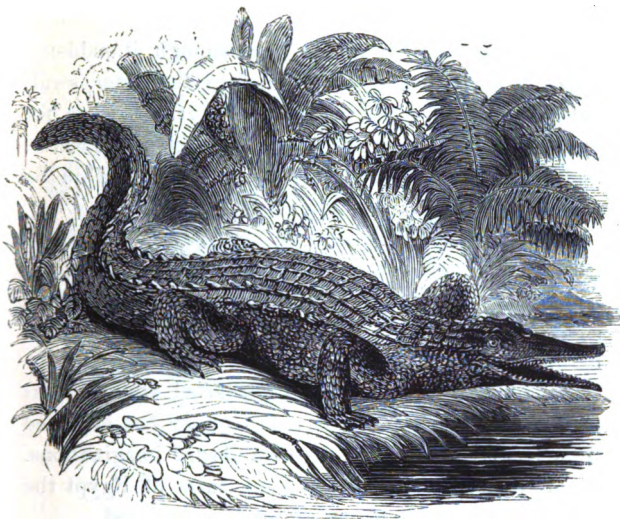
THE above cut represents the Hawk's-bill Turtle, which is so called from the resemblance which its horny beak bears to the bill of the hawk. The plates with which this Turtle is covered, form the beautiful substance known by the name of Tortoise-shell. There are thirteen of these plates on the back of the animal, which lie one over the other, like the tiles of a house, at least one-third of each plate overlapping the one behind it. The manner in which the tortoise-shell is softened, or polished, and so rendered fit for use and ornament, is very curious, the effects being produced chiefly by means of heat.

The Hawk's-bill Turtle is found about the islands and coasts both of the Indian and Atlantic oceans. Turtle of this species have also been taken on some

occasions on the shores of Great Britain. They feed on sea-weed, crabs, and various kinds of shell-fish. When not occupied in feeding, they are often seen floating, without the slightest movement, on the surface of the sea, as if asleep; they are then easily approached and taken. At other times their progress through the water is exceedingly rapid. The feet, which are formed like oars, propel the animal with great force. "The Green and Hawk-bill Turtle," says Audubon, "remind you, by their celerity, and the ease of their motions, of the progress of a bird in the air."

The young Turtles are hatched from eggs which the female lays in the sand at certain seasons. These eggs are perfectly round, and are much esteemed as articles of food. Audubon says, that the animal shows great caution in selecting the spot in which to lay her eggs. Raising her head above the water, on a fine moonlight night, she looks round her, and examines the several objects on the beach. She then utters a loud hissing sound, in order to scare away any enemies. Should she see danger, she sinks below the water; but if all be safe, she proceeds gently and quickly to form a hole in the sand, which she scoops up with her hind flappers, digging to the depth of eighteen inches, or sometimes more than two feet. "This labour," says our author, "I have seen performed in the short period of nine minutes. The eggs are then dropped, one by one, and disposed in regular layers, to the number of one hundred and fifty, or sometimes nearly two hundred." This operation takes about twenty minutes. She then scrapes the loose sand back over the eggs, and so levels and smooths the surface, that few persons on seeing the spot could imagine that anything had been done to it. This accomplished to her satisfaction, she retreats to the water with all possible despatch, leaving the hatching of the eggs to the heat of the sand.

The Green Turtle is highly valued for its flesh.



THE CROCODILE.

CROCODILUS NILOTICUS.

THE Crocodile is a native of Asia and Africa, and is hatched from an egg. It is one of the animals called amphibious, because it can live either in water or out of it. It is a very fierce and mischievous creature, with rows of sharp teeth, a large mouth, and angry-looking eyes. It is sometimes twenty or thirty feet long, and has a covering of skin like armour, over the back, which is so hard that a musket ball cannot pierce it. The whole animal has the appearance of being covered with curious carved work.

The Crocodile lies waiting quietly by the banks of rivers in Egypt, and other parts of Africa ; and when

it sees a dog, or other animal near enough, it suddenly seizes it, and diving down again into the water, swallows its prey. When it is hungry, it comes up for more food. Sometimes it floats on the top of the water, and takes into its mouth such fishes as come within its reach.

As soon as a young crocodile escapes from its egg, it makes for the water, but is often eaten up by the ichneumon, or by some bird of prey. The Crocodile's egg is considered by some to be good food, and is eaten by many natives of Africa.

As a proof of the low and perverted state of that mind which knows not the true God, or has departed from His truth, to follow its own absurd imaginations, it may be mentioned, that in some parts of Egypt the Crocodile was anciently worshipped and adored.

“ The snake-devouring Ibis, these enshrine,
Those think the Crocodile alone divine.”*

Bishop Heber describes a large Crocodile which he saw close to his boat, Aug. 16, 1824, and which “showed himself to the best advantage. Instead of being like those we had seen before, of a black or dusky colour, he was all over stripes of yellow and brownish black, like the body of a wasp, with scales very visibly marked, and a row of small tubercles or prominences along the ridge of his back and tail. He must, I should think, have been about fifteen feet long.”†

* Gifford's Juvenal.

† Journey in India.



THE LIZARD.

LACERTA AGILIS.

THE common Lizard, or, as it is sometimes called, the nimble Lizard, is the most gentle and inoffensive of all the tribe to which it belongs. Like the rest of that tribe, its head and body are covered with scales. The tail is generally much longer than the body. Beneath the throat there is a kind of collar, formed of nine plates or scales. The length of the animal is usually from $5\frac{1}{2}$ to $6\frac{1}{2}$ inches.

Professor Bell, in his "History of British Reptiles," gives the following graphic account of the Lizard before us:—

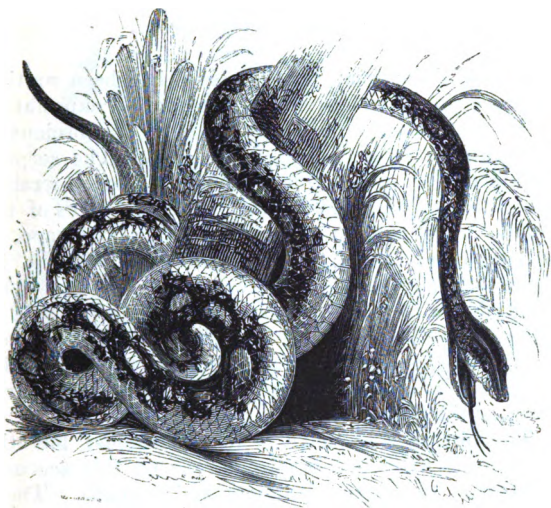
"This agile and pretty little creature is the common inhabitant of almost all our heaths and banks in most of the districts of England, and is met with in Scotland; it is also one of the few reptiles found in Ireland. On the continent its range does not appear

to be very extensive. It is not found in Italy, nor, I believe, in France, and is probably confined, in a great measure, to our own latitude. Its movements are beautifully gracile, as well as rapid; it comes out of its hiding-place during the warm parts of the day, from the early spring till autumn has far advanced, basking in the sun, and turning its head with a sudden motion the instant that an insect comes within its view; and darting like lightning on its prey, it seizes it with its little sharp teeth, and instantly swallows it. Thus it will often take a great many of the smaller insects."

The eggs are not placed in the sand to be hatched by the warmth of the sun, as is the case with the sand-lizard, but the young are produced alive, fully formed, able to run about, and very soon afterwards to take their own food.

The Green Lizard, which differs from the above, is frequently met with on the continent. Notices of it repeatedly occur in the ancient Roman authors. It is said that when this animal perceives the approach of a serpent, it is extremely agitated, and runs about as if in terror. These natural marks of fear have been considered by some persons as instances of attachment and regard to mankind, as if the little creature meant to warn them of the presence of the venomous reptile.

We again turn to Bishop Heber's delightful book. August 16, 1824. "My cabin was extremely infested with insects this evening, particularly with a large black beetle, which was very beautiful, having a splendid mixture of jet, copper colour, and emerald about it. I had also a pretty green Lizard, which I carefully avoided injuring, knowing it to be an enemy to ants and cock roaches, both of which plagues are increasing, and unfortunately do not now seem to check each other. Yet I was a little perplexed how 'the honest man should have found his way into my closet.'"



THE BOA CONSTRICTOR.

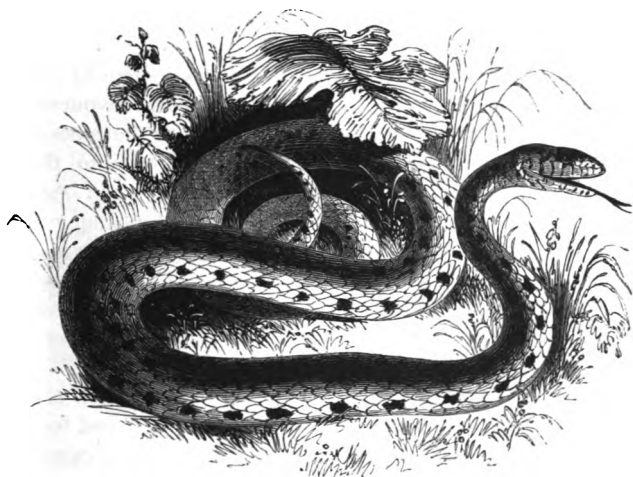
BOA CONSTRICTOR.

THE BOA CONSTRICTOR is a tremendous kind of serpent, different species of which are met with in the East Indies, in Africa, and in some parts of South America. This enormous reptile is often found to measure thirty feet in length. Its colour is of a dusky yellow, marked with large brown spots, bordered with black; the scales are round, small and smooth. In its native country it lies hidden in thickets, whence it suddenly rushes out, and, raising itself upright, attacks its victim. It generally preys upon goats, fowls, and the smaller game; but when impelled by hunger, it assails larger and stronger animals. Bishop Heber, in his *Journey in India*, speaking of these enormous snakes, says, "Many stories are told here, as in Surinam, of persons stepping on them by mistake for fallen trees, and being terrified on finding them alive."

One of these creatures, it is said, had been waiting for some time near the brink of a pool, in expectation of its prey, when a buffalo approached, unconscious of the presence of so terrible an enemy. The serpent having darted upon the poor animal, began to wrap it round in its folds; and at every turn, the bones of the buffalo were heard to crack. Unable to escape, it struggled and roared, but could not get free, till, its bones being crushed to pieces, and the whole body reduced to a mere mass, the serpent untwined itself in order to swallow it at leisure. To do this the more easily, it licked the body all over. It then gradually swallowed it at one morsel, the buffalo being three times as thick as itself.

The bite of this snake is not venomous; but the creature is scarcely less mischievous on this account, so great is its cunning, boldness, and strength. There is at this time (1844) one of them in the Surry Zoological Society, which some time since attacked its keeper, coiling itself about him. Had it not been for timely and powerful aid, on his calling for help, he would most probably soon have been killed.

Mr. A. Cops, formerly keeper of the lions in the Tower of London, was, about the year 1825, attacked by a Boa Constrictor, to which he was offering a fowl. The snake which was almost blind, being at that time about to change its skin, missing the fowl, seized the keeper's thumb instead, round which it at once threw its coils. It then instantly cast an additional fold round the man's neck, and fixed itself by its tail to one of the posts of its cage in such a manner as nearly to throttle him. His own exertions, however, aided by those of the under-keeper, at length disengaged him from his dreadful situation. So determined was the attack of the animal that it could not be compelled to relinquish its hold until two of its teeth had been broken off, which were left in the thumb.



THE COMMON SNAKE.

COLUBER NATRIX.

THERE are many species of this reptile. They are very common in England, and are to be found in most of the countries of Europe. The Snake represented above, is perfectly free from any poisonous quality. It is generally from three to four feet in length. It lives in our woods, heaths, and hedgerows, especially near water, and feeds upon young birds, eggs, mice, &c.; but chiefly upon frogs. It generally seizes the frog by the hind leg, and then, by degrees, swallows it whole.

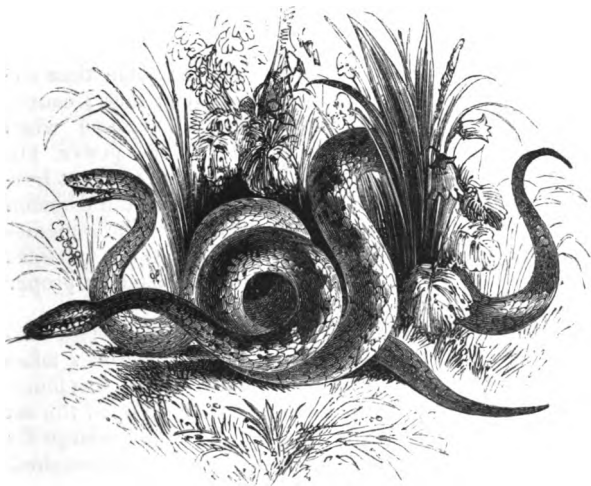
Professor Bell says : " I have seen one of these voracious creatures in pursuit of a frog, which appeared perfectly conscious of its approaching fate, leaping with less and less power, as it found its situation more alarming, and uttering its peculiar weak cry with more than

usual shrillness, until at length it was seized by its pursuer by the hinder leg, and gradually devoured. The frog is generally alive not only during the process of deglutition, but even after it has passed into the stomach. I once saw a very small one, which had been swallowed by a large snake in my possession, leap out of the mouth of the creature, which happened to gape, as snakes frequently do immediately after taking food. And on another occasion, I heard a frog distinctly utter its peculiar cry several minutes after it had been swallowed by the Snake."

He adds, "The common Snake is easily tamed, and may be made to distinguish those who caress and feed it. I had one which knew me from all other persons; and when let out of his box would immediately come to me, and crawl under the sleeve of my coat, where he was fond of lying perfectly still, and enjoying the warmth. He would come to my hand for a draught of milk every morning at breakfast, which he always did of his own accord: but he would fly from strangers, and hiss if they meddled with him."

We ought to be very thankful to God, that this country is so free from poisonous reptiles, and other noxious animals, as it happily is. There are nations whose inhabitants are constantly obliged to take measures for protecting themselves against such annoyances.

Derham remarks of the venomous tribes, that their poison is doubtless of some great and especial use to themselves, for the more easy conquest and sure capture of their prey. He also suggests that it may help the digestion of their food.



THE COMMON VIPER.

VIPERA BERUS.

THE COMMON VIPER is the only poisonous reptile which is a native of this country. It is often known by the name of the Adder, and is found in sandy heaths, among dry woods, on banks, and in waste places. In Scotland, it is met with more frequently than the common snake. In Ireland it has never been seen. It is found on the continent of Europe, from the northern part of Russia to the south of Italy and Spain.

It is naturally feared on account of its venom, which, by the pressure of its tooth, it drops into the wound it has made. The bite and the insertion of the venom are the work of an instant, producing severe symptoms, and sometimes death itself in warmer climates. "In this country," says Professor Bell, "I have never seen

a case which ended in death. At the same time the symptoms are frequently so threatening, that I cannot but conclude that in very hot weather, and when not only the reptile is in full activity and power, but the constitution of the victim is in a state of great irritability and diminished power, a bite from the common Viper would very probably prove fatal." The remedies usually employed for this injury, are the outward application of sweet oil, and ammonia taken in proper quantities inwardly.

The Viper feeds on field-mice, shrews, frogs, and small birds. It is very greedy, and sometimes takes into its mouth more than it can swallow. One was found on Poole Heath, Dorsetshire, in a dying state, in the act of trying to swallow a mouse which was too large for it, the skin of the Viper's neck being so overstretched, as to have burst in several places.

The Viper, like many other venomous serpents, is born alive. As soon as it is born it begins to crawl about, and immediately shows its mischievous nature, the little reptile being easily enraged, and putting itself at once into a posture of defence.

The Psalmist, in describing the nature of the wicked, says: "They are as venomous as the poison of a serpent; even like the deaf adder, that stoppeth her ears."*

The Messiah's complete victory over our spiritual enemies, seems to be predicted in another Psalm: "Thou shalt go upon the lion and adder; the young lion and the dragon shalt thou tread under thy feet."†

* Psalm lviii. 4. † Psalm xci. 13. See Bishop Horne's Commentary.



THE RATTLE-SNAKE.

CROTALUS HORRIDUS.

THIS poisonous reptile is found in the continent of America. Its venom is said to be more virulent than that of any creature of the same class ; but happily it seldom employs its fatal power, except when induced by hunger, or for the purpose of self-preservation. It is extremely sluggish, and generally avoids the sight of man. The poison is inserted into the body of its victim, by means of two long, sharp-pointed teeth or fangs, which grow, one on each side of the upper jaw. The root of each fang rests on a kind of bag, containing a certain quantity of liquid poison, of a yellow colour ; and when the animal bites, a portion of this fluid is forced through an opening in the tooth, and lodged at the bottom of the wound. Another peculiarity of the poison-teeth is, that, when not in use,

they turn back, as it were, upon an hinge, and lie flat in the roof of the animal's mouth.

Some persons have imagined that the Rattle-Snake has the power of fascinating its prey. The idea probably arose from the circumstance of the smaller animals, on which this snake subsists, becoming so terrified at the sight of their frightful enemy, as to lose their self-possession when in its presence.

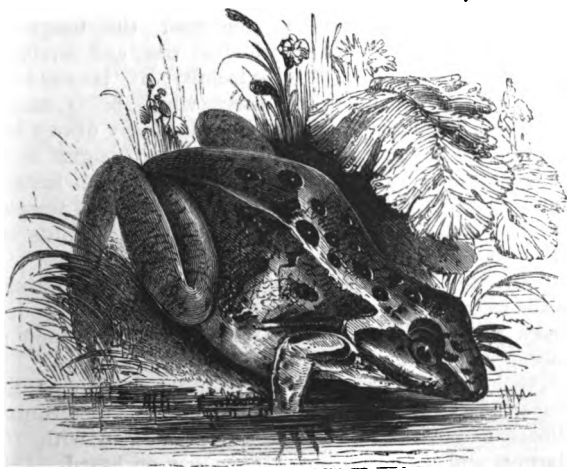
Its name is given to it on account of the wonderful apparatus with which its tail is furnished. This consists of a series of hollow, horn-like substances, placed loosely one against the other, in such a manner as to produce a rattling noise when the tail is shaken; and as the animal, when intending an attack, gives a tremulous action to the tail, timely notice is afforded of the threatened danger. It is said that the number of pieces of which this rattle is formed, indicates the age of the snake, as a fresh portion grows every year.

The mechanism of the jaw of most serpents is very wonderful, allowing them, from its vast power of expansion, to swallow animals of great comparative size. Like all other creatures which swallow their prey whole, the teeth appear to be formed chiefly for preventing its escape, and not for the purposes of mastication.

The effect of music upon snakes is said to be very great, and is often produced by the serpent-charmers of India. Viscount Chateaubriand relates, that, in July, 1791, in Upper Canada, he saw a native appease the anger of a Rattle-Snake, and even cause it to follow him by the music of his flute.

This reminds us of the words of the Psalmist, when, speaking of the wicked, he says; "Their poison is like the poison of a serpent; they are like the deaf adder that stoppeth her ear; which will not hearken to the voice of charmers, charming never so wisely."*

* Psalm lviii. 4, 5.



THE FROG.

RANA TEMPORARIA.

THIS harmless and useful animal is found in almost all parts of the kingdom. Wherever there is a river, or a pond, Frogs are to be met with; and, when great numbers are collected together, their croaking may often be heard from a great distance. They are most noisy in the season of spring, when they begin again an active life, having passed the winter months in a state of torpor, without moving or feeding. Their winter retreat is generally the mud at the bottom of the water, where they are preserved in a nearly equal temperature, though at a low degree; and are secured from external injury. Here they collect in multitudes, appearing almost as one mass. After their long sleep they feed very heartily.

Their food consists of various kinds of insects, and of small slugs, which they swallow whole. Mr. Bell says, "The manner in which the frog takes its food is

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very interesting. As in the toad, the tongue is doubled back upon itself when at rest, and having a viscous secretion at the extremity, it is suddenly thrown forward upon the insect, which being caught by the adhesive matter upon it, is instantly drawn into the mouth by the sudden return of the tongue to its former position. This is but the work of an instant, and, indeed, is performed with such rapidity as scarcely to be detected without careful watching." Thus the Frog is a valuable aid to the gardener and farmer.

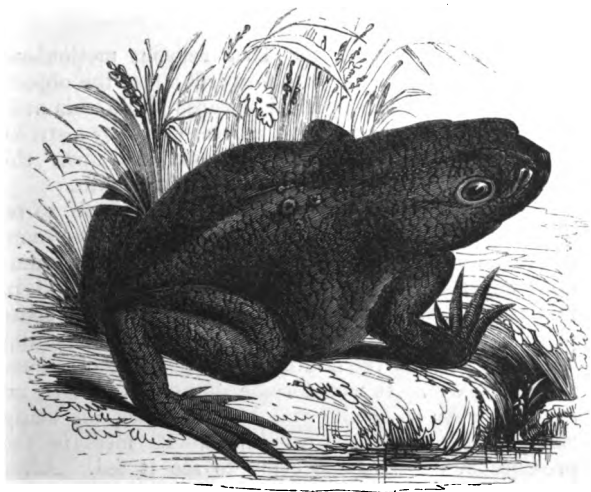
Mr. Bell, in his notice of this remarkable creature, calls attention to the changes which its colour undergoes from various causes; such as the presence or absence of light, the influence of fear, &c.

Bishop Heber, writing in Calcutta, in June, 1824, says: "The gardens, fields, and ditches, (and the ground-floors of some of the houses, too,) swarm with the largest and noisiest frogs I ever saw or heard. One of these frogs I saw, about as large, I think, as a good-sized gosling, and very beautiful; being green, speckled with black, and almost transparent."

This little reptile may be tamed. Dr. W. Roots had one in a domestic state, which "partook of the food given it by the servants. During the winter seasons, he regularly came out of his hole in the evening, and made for the hearth in front of a good kitchen fire, where he would continue to bask, and enjoy himself, till the family retired to rest. A sort of intimacy existed between him and a favourite old cat, under whose warm fur the Frog frequently nestled, whilst the cat appeared extremely jealous of interrupting the comforts and convenience of the Frog. This curious scene was often witnessed by many besides the family."

One of the plagues which visited Egypt, on account of Pharaoh's wickedness, consisted of vast quantities of Frogs which covered the land.*

* Exodus viii. 6.



THE TOAD.

BUFO VULGARIS.

THIS reptile generally measures about four inches in length, and has an unsightly appearance. Though not unlike the Frog in its form and some of its habits, it is less active than that creature, and is not so fond of the water. Its movements also are less active: instead of leaping nimbly like the Frog, it crawls slowly about; so slowly indeed, that, when attacked by cruel men or boys, it has but little chance of escape. One reason for its being disliked is, that it is considered by many persons to be offensive and venomous; whereas, it is not only harmless, but useful, and has been known to become attached to those who treat it with kindness. Its use consists in clearing away from the vegetation insects and worms, which it seizes in a very curious manner.

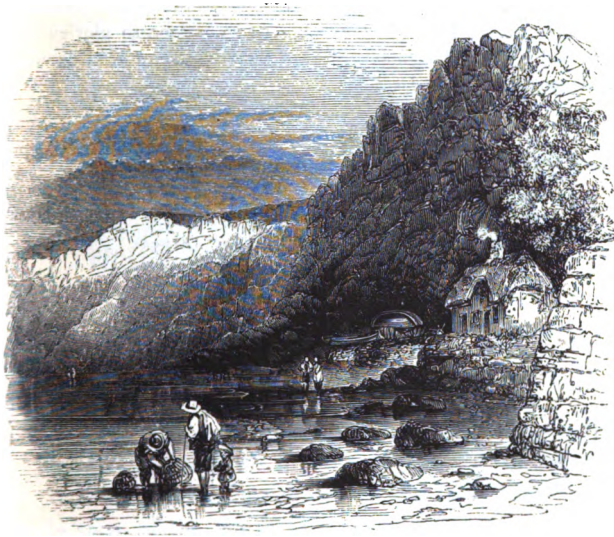
When about to feed, the Toad remains motionless, with its eyes turned directly forwards upon the object, and the head a little inclined towards it; in this attitude it remains till the insect moves, when, by a stroke like lightning, the tongue is thrown out upon the victim, which is instantly drawn into the mouth.

The toad may be so tamed, as to suffer itself to be taken up in a person's hand, and carried about the room to catch flies that alight on the walls. Pennant mentions one that had become accustomed to be fed in this manner, the creature having frequented the same place for thirty-six years; namely, a small opening under the steps of the hall door of a gentleman's house in Devonshire. It would come out of its hole in an evening when a candle was brought, and, on being carried into the house, would take its meal in the presence of persons who came to see it fed. After having been kept so long, it was at length destroyed by a tame raven, which, seeing it at the mouth of its hiding-place, pulled it out, and so wounded it that it died.

During the winter months the toad continues in a torpid state, retreating to the cleft of a rock, or to some hollow in the root of a tree, or among the mud at the bottom of a ditch. It is very long lived, and not easily killed. Stories are told of Toads having been found alive inclosed in blocks of stone and marble, and in the trunks of trees, where it is conjectured they must have lain for centuries. Mr. Bell, a close observer of the habits and properties of animals, remarks, that to believe these accounts "is a demand upon our credulity which few would be ready to answer."

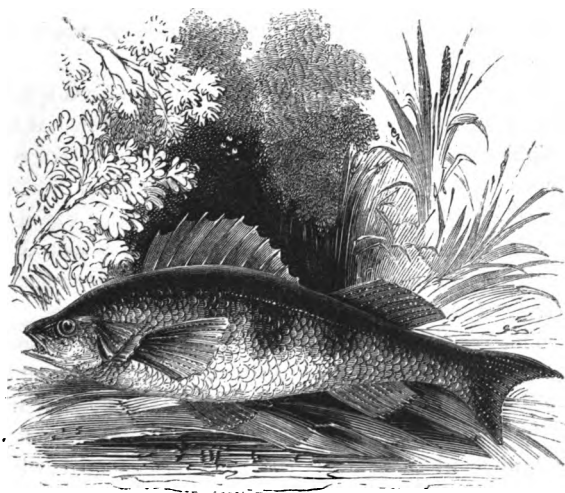
This animal is sometimes called ugly; but Sir Thomas Brown has this remark,—“I hold there is a general beauty in the works of God;” and he adds, that he knows not by what logic we call a toad ugly.

FISHES.



“THE waters themselves are an admirable work of God, and of infinite use to that part of the globe already surveyed. And the prodigious variety and multitudes of curious and wonderful things observable in its inhabitants of all sorts, are an inexhaustible scene of the Creator’s wisdom and power. The vast bulk of some, and prodigious minuteness of others, together with the incomparable contrivance and structure of the bodies of all; the provisions and supplies of food afforded to such an innumerable company of eaters, and that in an element unlikely, one would

think, to afford any great store of supplies; the business of respiration, performed in a way so different from, but equivalent to what is in land-animals; the adjustment of the organs of vision to that element in which the animal liveth; the poise, the support, the motion of the body forwards with great swiftness, and upwards and downwards with great readiness and agility, and all without feet and hands; and ten thousand things besides;—all these things, I say, do lay before us so various, so glorious, and withal so inexhaustible a scene of the Divine power, wisdom, and goodness,” &c.—*Derham's Physico-Theology*.



THE PERCH.

PERCA FLUVIATILIS.

THERE is scarcely a river or lake of any extent in this country in which the Perch is not found in abundance. It occurs in Ireland, in most of the lakes of Scotland, in those of the North of England, and also in Wales. In rivers, it prefers the side of the stream, to the rapid parts of the current, and feeds upon insects, worms, and various small fish.

So bold and voracious are Perch, that in a few days after some had been placed in a pond in Bushy Park, Mr. Jesse says they came freely and took from his hand worms which he held out to them. The flesh of this fish is firm, compared with that of small fish in general,

white, and of good flavour, and is much esteemed by the Dutch when served up as *water-souchy*.

A Perch of three pounds weight is considered a fish of large size. Perch have, however, been taken weighing four pounds each, from the ponds in Richmond Park. One was taken from the Birmingham Canal, weighing six pounds. Others of even greater size are stated to have been caught ; and Pennant records his having heard of one that was taken in the Serpentine River, Hyde Park, that weighed nine pounds.

The Perch, though very common, is one of the most beautiful of our fresh-water fish ; its form being elegant, and its colours brilliant and striking. The upper part of the body is a rich greenish brown, passing into golden yellowish white below ; the sides ornamented with from five to seven dark transverse bands.

Izaak Walton says, "The Perch is a very good, and a very bold biting fish ; he is one of the fishes of prey, that, like the Pike and Trout, carries his teeth in his mouth, which is very large ; and he dare venture to kill and devour several other kinds of fish. He has a hooked or hog-back, which is armed with sharp and stiff bristles, and all his skin armed or covered over with thick, dry, hard scales ; and he hath, which few other fish have, two fins on his back. He is so bold that he will invade one of his own kind."

It has been sometimes said that the Pike will not attack this fish, for fear of its thorny spikes, which it raises on the approach of danger. Though this may be true with regard to large Perch, it is well known that the small ones are used with success as bait for Pike.



THE MACKEREL.

SCOMBER SCOMBER.

THE MACKEREL has been supposed by some writers on Natural History to be a fish of passage, and to make long voyages, northward or southward, according to the season. But this seems to be a mistake. The Mackerel is now found on some parts of our own coast, in every month of the year. It approaches nearer to the shore at certain times than at others; and this law of its nature enables man to take it in vast numbers as a valuable article of food. If Mackerel always remained in the deeper parts of the sea, little could be done in fishing for them; but roving along the shore, as they do, in large shoals, millions are caught, which yet form but a small portion, compared with the tens of millions that escape the net or the line.

Mr. Yarrell, in his History of British Fishes, says that the most common mode of fishing for Mackerel,

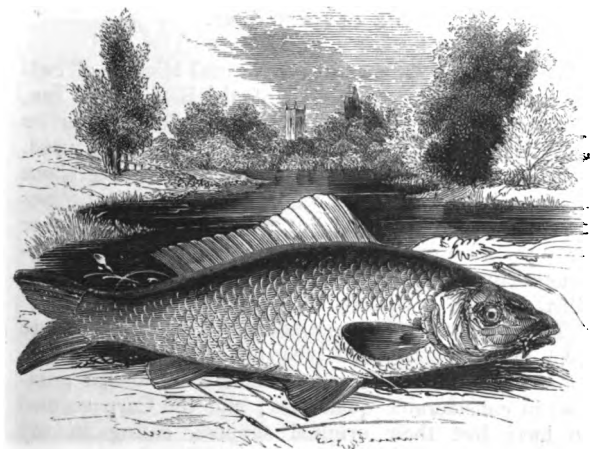
and the way in which the greatest numbers are taken, is by drift-nets. Twelve, fifteen, and sometimes eighteen of these nets, twenty feet deep, by one hundred and twenty feet long, are attached lengthways to a thick rope, called the drift-rope. When arranged for depositing in the sea, a large buoy to which the end of the drift-rope is fastened, is thrown overboard; and as the vessel sails before the wind, this rope with the nets attached, is passed over the stern, into the water, till the whole of the nets are run out, sometimes to the distance of a mile, or more. The drift-rope is then shifted from the stern to the bow of the vessel, which pulling upon the rope keeps the nets straight and suspended in the water. This is generally in the evening. The fish, roving in the dark through the water, hang in the meshes of the net, which are large enough to admit them beyond the gill-covers and pectoral fins, but not large enough to allow the thick part of the body to pass through. In the morning early, the nets are hauled in, and the fish secured.

Many Mackerel are caught by the hook and line. They will take various kinds of bait; but the usual bait is a portion of the tail of the Mackerel, or a piece of red cloth.

In May 1807, the first Brighton boat-load of Mackerel sold at the rate of seven shillings each fish. In 1808, they were sold at Dover at sixty fish for a shilling!

Large quantities of this valuable fish are salted in France; and some are preserved in this way for consumption in Cornwall.

The general size and flavour, as well as the bright and beautiful colours, of the Mackerel are too well known to need a description. The hues are extremely rich and vivid when the fish is first drawn out of the water; and its flavour is excellent in proportion to its freshness. The Mackerel feeds on small fish. Young Mackerel are called Shiners.



THE COMMON CARP.

CYPRINUS CARPIO.

“THE CARP,” says Izaak Walton, in his own quaint language, “is the Queen of rivers : a stately, a good, and a very subtle fish, that was not at first bred, nor hath been long, in England, but is now naturalized.”

It is not known when Carp were first brought into England. They are mentioned in the “Boke of St. Albans,” which was printed by Wynkyn de Worde, in 1496. The old couplet is certainly incorrect, which says,

“Turkies, Carps, Hops, Pickerell, and Beer,
Came into England all in one year,”

as both turkeys and hops were unknown till upwards of twenty years after the date above-mentioned.

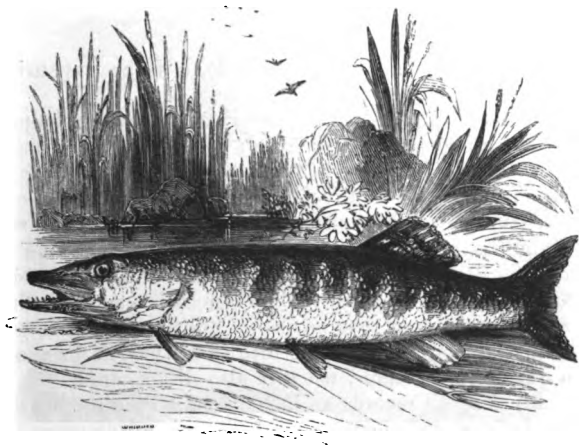
In this country, the Carp inhabits ponds, lakes, and rivers ; preferring, in the lakes, those parts where the current is not strong, and thriving best where the ground is soft and marly. They probably eat scarcely anything in winter, and are supposed to bury them-

selves in mud. White, in his *Natural History of Selborne*, says: "In the garden of the Black Bear Inn, Reading, is a stream or canal running under the stables and out into the fields on the other side of the road. In this water are many Carps, which lie rolling about in sight, being fed by travellers, who amuse themselves by tossing them bread; but as soon as the weather grows at all severe, these fishes are no longer seen, because they retire under the stables, where they remain till the return of Spring."

Mr. Jesse says of some Carp and Tench, which were kept by him in a small piece of water, "They were soon reconciled to their situation, and ate boiled potatoes in considerable quantities; and the Carp seemed to have lost their original shyness, eating in my presence."

It is said to be a practice in Holland to keep Carp alive for three or four weeks, by hanging them in a cool place with wet moss in a net, and feeding them with bread soaked in milk.

Carp are in season from October to April; and, as Mr. Yarrell remarks, "they are greatly indebted to the cook for the estimation in which they are held." Izaak Walton says, "I will tell you how to make this Carp, that is so curious to be caught, so curious a dish of meat as shall make him worth all your labour and patience." Then, after giving a receipt, in which pickled oysters, anchovies, and onions concur with the rinds of oranges and lemons, sweet herbs, and plenty of spiced claret, in making a savoury "broth," he adds; "Set it on a quick fire till it be sufficiently boiled; then take out the Carp, and lay it with the broth into the dish, and pour upon it a quarter of a pound of the best fresh butter, melted and beaten with half a dozen spoonfuls of the broth, the yolks of two or three eggs, and some of the herbs shred. Garnish your dish with lemons, and so serve it up; and much good do you!"



THE PIKE.

ESOX LUCIUS.

THIS well-known fish, which is now common throughout Europe, was some centuries ago very rare in England. Edward the First, who regulated the prices of fish which were then brought to market, fixed the value of Pike at a higher rate than fresh salmon, and more than ten times as high as the finest turbot or cod. Pike are frequently specified among the dainties served up at great feasts subsequently to that date. They were so much esteemed in the reign of Henry the Eighth, that a large one sold for double the price of a house-lamb in February, and a small Pike for more than a fat capon.

The Pike is strong, fierce, and active ; swims swiftly, and occasionally darts along with amazing velocity. Its growth, when the creature is well supplied with food, is extremely rapid ; and, as the digestion is quick,

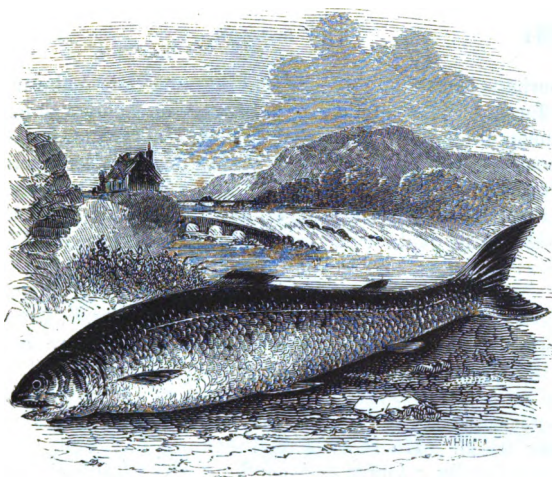
and the appetite almost insatiable, it is an expensive fish to maintain.

The voracity of Pike is proverbial. They feed upon roach, gudgeon, and such fish as they can swallow; and if these fail, they will eat any small prey they may meet with, whether alive or dead. Eight Pike of about five pounds weight each consumed nearly eight hundred gudgeons in three weeks. "The appetite of one of these Pike," says Mr. Jesse, "was almost insatiable. One morning I threw to him, one after another, five roach, each about four inches in length; he swallowed four of them, and kept the fifth in his mouth for about a quarter of an hour, when it also disappeared."

Mr. Yarrell records an instance of a Pike seizing the head of a swan, when she put her head under water; the fish gorged so much of it that both bird and fish were killed. A mule on being brought to water was caught by the lips by a hungry Pike, which was thus drawn out of the water before it could disengage itself. A woman, while washing clothes in a pond, had her foot bitten by one; and they have sometimes darted at men's hands held over the side of a boat.

Pliny considered the Pike likely to attain a longer life, and a larger size, than any fresh-water fish. Gesner says, that in the year 1497, a Pike was taken at Hailbrun, in Suabia, with a brazen ring attached to it, on which was an inscription in Greek to the following effect: "I am the fish which was first put into this lake by the hands of the governor of the universe, Frederick the Second, October 5, 1230." This makes the fish 267 years old: it is said to have weighed 350 pounds.

The lakes of Ireland and Scotland afford large Pike, the former having produced some of seventy pounds: but Izaak Walton tells us that "such old or very great Pikes have more in them of state than goodness; the smaller or middled-sized Pikes being by the most and choicest palates observed to be the best meat."



THE SALMON.

SALMO SALAR.

“THE SALMON,” says Izaak Walton, “is accounted the king of fresh-water fish, and is ever bred in rivers relating to the sea, yet so high or far from it as admits of no tincture of salt or brackishness.” The Salmon, however, may be said to inhabit both fresh and salt water, and, as one has wittily observed, “he has, like some persons of honour and riches, which have both their winter and summer houses, the fresh rivers for summer, and the salt water for winter to spend his life in.”

These valuable fish quit the sea at certain seasons, and proceed up the rivers in the spring or summer months, sometimes for hundreds of miles. In thus ascending a stream, particularly as the season advances, their progress is not easily stopped. They will throw themselves up heights many yards above the level of the water; and when they have missed their aim, and

perhaps hurt themselves in the attempt, they make new efforts. Where the water is low, or sand-banks oppose them, they place themselves on one side, and, in that position, work themselves over into deep water beyond. It is in falling back, however, that the fish are frequently taken by the inhabitants, who place baskets near the edge of the pool for the purpose of catching them. This custom prevails in Ireland and Scotland.

Mr. Mudie, in the *British Naturalist*, describes the pool below the Fall of Kilmorac, on the Beaully, in Invernesshire, as thronged with Salmon, which are continually attempting, but in vain, to pass the fall. They often kill themselves by the violence of their exertions to ascend; and sometimes they fall upon the rocks and are taken. He records an ingenious but cruel mode occasionally adopted, of catching and killing Salmon for the amusement of a company! "It is said that one of the wonders which the Frasers of Lovat, who are lords of the manor, used to show their guests, was a voluntarily-cooked Salmon at the Falls of Kilmorac. For this purpose a kettle was placed upon the flat rock on the south side of the fall, close by the edge of the water, and kept full and boiling. There is a considerable extent of the rock where tents were erected, and the whole was under a canopy of overshadowing trees. There the company are said to have waited until a Salmon fell into the kettle, and was boiled."

There are many ways of taking Salmon, while pursuing their course up the streams;—as by nets, or by building across the water weirs or dams, which prevent the advance or return of the fish. Spearing Salmon, either by day-light or torch-light, is also practised in the north. The spear with which the fish is struck in the act of leaping is barbed like a fish-hook.

In London, a Thames Salmon, when fortunately met with, obtains an extremely high price. The Severn Salmon are also much esteemed.



THE COMMON TROUT.

SALMO FARIO.

THE TROUT is a well-known inhabitant of most of the rivers and lakes of Great Britain. It is a voracious feeder, but so vigilant, cautious, and active, that much skill and patience are necessary for taking it. Its food generally consists of flies, though worms and small fish are eagerly devoured by it. Mr. Stoddart, a writer on Angling, mentions an interesting experiment, which was made some years ago in the south of England, in order to ascertain the effect of different kinds of food on this fish. "Some Trout were placed in three separate tanks, one of which was supplied daily with worms, another with live minnows, and the third with those small dark-coloured water-flies which are to be found moving about on the surface under banks and sheltered places. The Trout fed with worms grew slowly, and had a lean appearance; those nourished on

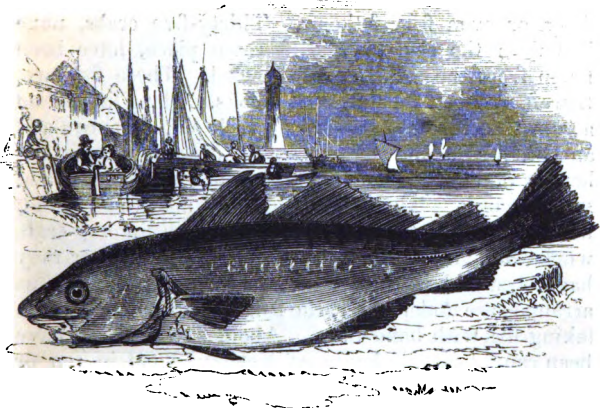
minnows, at which they darted with great voracity, became much larger; while such as were fattened upon flies only attained in a short time prodigious dimensions, weighing twice as much as both the others together," although the quantity of food swallowed by the fly-eaters was not so great.

Trout sometimes reach a vast size, and are said to live to a great age. One was caught at Salisbury, in January, 1822, in a small stream, branching from the Avon, which weighed twenty-five pounds; but this was an extraordinary specimen. They are met with of good size in the Thames near Kingston, Hampton Court, Shepperton, and Chertsey. Some deep pools in the Thames above Oxford afford excellent Trout. "Few persons," says Mr. Yarrell, "are aware of the difficulty of taking a Trout, when it has attained twelve or fourteen pounds weight: it is very seldom that one of this size is hooked and landed, except by a first-rate fisherman. Such a fish, when in good condition, is considered a present worthy of a place at a royal table."

The age to which Trout may live has not been ascertained. We are told, in Mr. Yarrell's work,* "that in August, 1809, a Trout died, which had been for twenty-eight years an inhabitant of the well at Dumbarton Castle. It had never increased in size from the time of its being put in, when it weighed about a pound; and it had become so tame, that it would receive its food from the hands of the soldiers." In August, 1826, the "Westmoreland Advertiser" contained a statement that a Trout had lived fifty-three years in a well in an orchard at Board Hall, near Broughton-in-Furness.

The Trout is fond of its own particular place in the stream; and the peasants, in Devonshire and elsewhere, frequently catch the fish with their hands, the water being rendered turbid. This they call "tickling Trout."

* Vol. II. p. 55, ed. 1836.



THE CODFISH.

GADUS MORRHUA.

THE tribe to which this fish belongs is very numerous, including the fish represented above, the Haddock, Hake, Whiting, and some others. The several species inhabit the ocean, and seldom visit the fresh waters. The flesh of most of them is white, firm, and of good flavour.

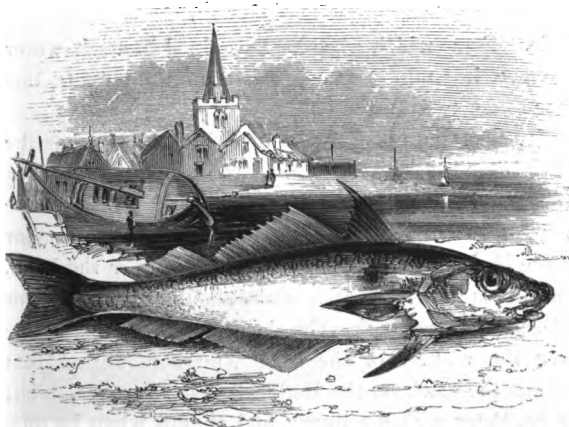
The common Codfish is excellent as an article of food : and it is taken in vast numbers, in various seas. In this country it is found all round the coast : it abounds among the islands to the north and west of Scotland, and is also met with near the shores of Ireland. In the United Kingdom alone, this fish, in the catching, curing, and selling, affords employment and profit to many thousands of persons.

Codfish feed near the ground, on various small fish, worms, &c., at the depth of from twenty-five to

forty, or even fifty fathoms. Thirty-five crabs, none less than the size of a half-crown piece, have been taken from the stomach of one Cod. These fish are, therefore, taken with lines and hooks. A long line is laid across the tide, and secured at each end by buoys and anchors, or grapples. At regular distances along the length of this line hooks are fastened by shorter and smaller cords. The hooks, which are near the ground, but do not quite touch it, are baited with limpet, crab, whelk, &c., and are taken up about six hours after they have been laid in their order. While the hooks thus arranged are under water, the fishermen are engaged in taking fish with hand-lines. About five hundred have been caught on the banks of Newfoundland in ten or eleven hours, by one man; and eight men, fishing for the London market, off Dogger Bank, on the coast of Holland, in twenty fathoms of water, have taken one thousand six hundred Cod in one day. The Dogger Bank fish are highly esteemed. They are brought in vessels, called store-boats, having wells, in which the fish are preserved alive. Boats of this kind are said to have been first built at Harwich in the year 1712. They remain as low as Gravesend, where the water is sufficiently salt to keep the fish living; if they were brought higher up, the fresh water would kill the fish.

Cod are in the best state for eating in the cold months of the year. Vast quantities of this fish are salted.

There is a small species, called the Poor or Power Cod, the appearance of which in some seas is a source of pleasure to the fishermen. It is called the fish-conductor, being generally followed by shoals of the larger kind, which prey upon their diminutive companions. "The fishermen," says Mr. Yarrell, "in their turn, prey upon them."



THE HADDOCK.

GADUS ÆGLEFINUS.

THIS fish is almost as well known as the common cod ; and from the quantities taken round the coast, and the ease with which the flesh can be preserved, it is a fish of great value. Besides frequenting the coast of Great Britain, the Haddock may be traced nearly all round the shores of Ireland. The largest seen for some years past, was taken in Dublin Bay, it having weighed sixteen pounds. The most common weight of a Haddock is from two to four pounds.

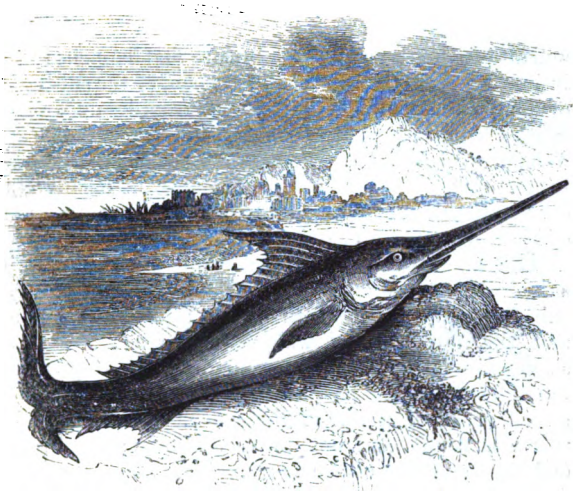
Haddocks swim in innumerable shoals. Along the eastern coast, from Yarmouth to the Tyne, they are caught with long-lines and hand-lines. The most attractive baits are pieces of herring or sand-launce. Along our southern shore they are frequently taken with the trawl-net. Their food is small fish of various

kinds. Some which were kept confined in a salt-water preserve, became so tame, that they ate limpets, one after another, from the hand.

Mr. Yarrell, in his *History of British Fishes*, has the following remark in allusion to the name of Onos, or Asinus, which is supposed to have been given by the ancients to this fish. "The dark mark on the shoulder of the Haddock very frequently extends over the back, and unites with the patch of the shoulder on the other side, forcibly reminding the observer of the dark stripe over the withers of the ass. The superstition that assigns the mark on the Haddock to the impression left by St. Peter with his finger and thumb, when he took the tribute-money* out of a fish of this species, has been continued to the whole race of Haddocks ever since the miracle, and may possibly have had its origin in the obvious similarity of this mark on the same part of the body of the Haddock, and of the humble animal which bore the Saviour. That the reference to St. Peter is erroneous, is shown by the fact, that the Haddock does not exist in the sea of the country in which the miracle was performed."

This superstition would not have been alluded to here, but from the circumstance of the Haddock being sometimes called St. Peter's fish.

* Matt. xvii. 27.



THE SWORD-FISH.

XIPHIAS GLADIUS.

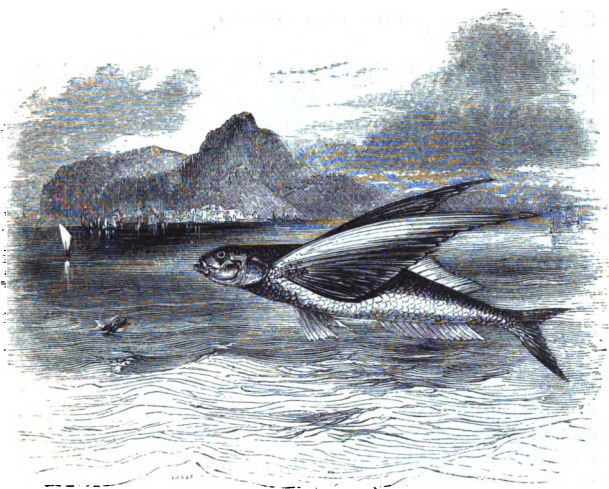
THERE are two species of this creature, the Broad-finned, and the European Sword-Fish. The former of these inhabits the Brazilian and East Indian seas, and the Northern Ocean. In its terrible weapon, from which it derives its name, as well as in its general habits, it is like the European Sword-Fish, which is found in the Mediterranean, and which has occasionally been met with on the British coasts. Daniell, in his "Rural Sports," states that "in the Severn, near Worcester, a man bathing was struck, and actually received his death-wound from a Sword-Fish. The fish was caught immediately afterwards, so that the fact was ascertained beyond a doubt."

The Sword-Fish is a large and powerful creature, sometimes weighing a hundred pounds and more. It

will attack almost any living creature that happens to fall in its way, with the formidable weapon, of the substance of bone, which extends like a sword from its upper jaw. With this it destroys its prey. The Sword-Fish and Whale are said often to come to battle; and the only protection which the whale has against his enemy is to dive to the bottom, in order to protect the under part of his body, or else to swim away, and so escape.

The force with which the Sword-Fish makes its assault is astonishing. In 1725, when his Majesty's ship *Leopard*, after her return from the coast of Guinea and the West Indies, was refitted for the channel service, in stripping off her sheathing, the shipwrights found in the lower part of the vessel a portion of the sword or snout of one of these fish. On the outside this was rough, and not unlike seal-skin; the broken end appeared like coarse ivory. The weapon pointed from the ship's stern towards the head; the fish must therefore have followed and overtaken the ship while sailing. It had penetrated the sheathing, an inch thick, passed through the planking, three inches thick, and beyond that four inches into the timber. The workmen declared that, with a hammer of a quarter of a hundred weight, it would have required nine blows to drive in a substance of the same kind, although the fish had effected it by a single thrust.

The captain of an East-Indiaman, in a letter to Sir Joseph Banks, gives an account of a similar attack upon his own ship, so that the whole length of the sword was imbedded in the ship. A part of the bottom of the vessel with the sword fixed in it, was deposited in the British Museum.



THE FLYING FISH.

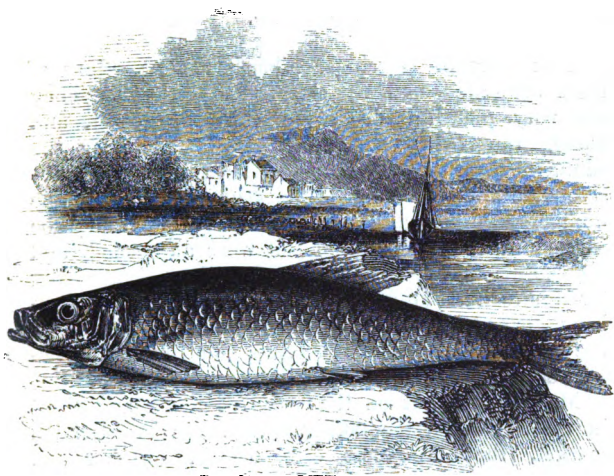
EXOCOETUS VOLITANS.

THERE are several instances of a kind of Flying Fish having been found on different parts of the British coast. A shoal of them was seen in August 1825, off Portland, taking long and frequent flights as if pursued by some of their enemies of the deep. One threw itself on the shore of Helford river, near Falmouth, which measured sixteen inches in length; the pectoral fins, with which it has the power of raising itself into the air, being eight inches and a half long.

This remarkable animal chiefly inhabits the seas of hot climates, and is found in large quantities in New South Wales. Pennant states, that the Flying Fish, in its own element, is perpetually harassed by the Dorados and other fish of prey. If it endeavours to avoid them by having recourse to the air, it either meets its fate from the gull or the albatross, or is forced down again

into the mouth of the fish which keep pace with its flight. Shoals of Flying Fish sometimes fall on board vessels. The usual height to which they ascend above the surface of the water, is about two or three feet, but they sometimes rise fifteen or eighteen feet high. Their flesh is well-flavoured, and is sometimes eaten by the sailors on a long voyage.

The excellent John Ray, at the conclusion of the following fine passage in his "Wisdom of God manifested in the works of the Creation," appears to advert to the fish before us. He is speaking of the *multitude* of God's works, and His *wisdom* in creating them. "What can we infer from all this? If the number of creatures be so exceeding great, how great, nay immense, must be the power and wisdom of Him who formed them all! For, (that I may borrow the words of a noble and excellent author,) as it argues and manifests more skill by far in an artificer to be able to frame both clocks and watches, and pumps and mills, and granados and rockets, than he could display in making but one of those sorts of engines; so the Almighty discovers more of His wisdom in forming such a vast multitude of different sorts of creatures, and all with admirable and irreprovable art, than if He had created but a few; for this declares the greatness and unbounded capacity of His understanding. Again, the same superiority of knowledge would be displayed by contriving engines of the same kind, or for the same purposes, after different fashions, as the moving of clocks, or other engines by springs instead of weights; so the infinitely wise Creator hath shown in many instances that He is not confined to one only instrument for the working one effect, but can perform the same thing by divers means. So, though feathers seem necessary for flying, yet hath He enabled several creatures to fly without them, as two sorts of fishes, one sort of lizard, and the bat, not to mention the numerous tribes of flying insects."



THE HERRING.

CLUPEA HARENGUS.

THE common Herring visits our shores chiefly in the autumn; it is then in its best state as an article of food. The fishing for it, which is a matter of vast national importance, is carried on with great spirit for certain periods, in different parts of Great Britain and Ireland. "And here," observes a naturalist, "we cannot but admire the order of Divine Providence, by whom this and several other species of fish are brought to the shores, within the reach of man, at the time when they are in their highest perfection, and best fitted to be his food."

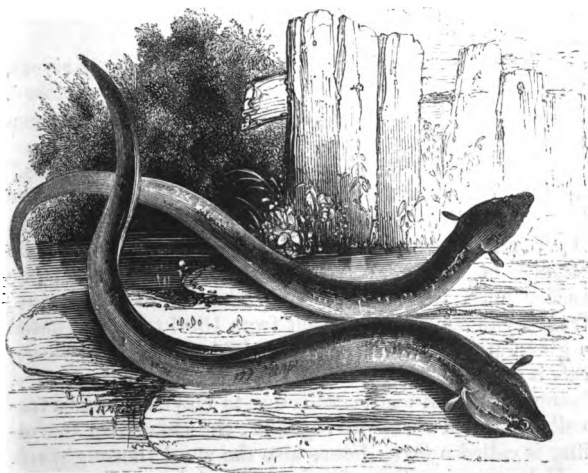
Brought into the market in large numbers, and at a moderate price, immense quantities of them are eaten; and from their fine and delicate flavour, the consumption of them is general among all classes. In this country, Yarmouth, in Norfolk, is the great and

ancient mart of Herrings. Considerable portions of them are salted, and are then called bloaters. They are very plentiful along the Yorkshire coast, and among the Orkney and Shetland islands during the summer months. They once swarmed so excessively on the west side of the Isle of Skye, that the numbers caught were more than could possibly be carried away. After the boats were all loaded, and the country round had been served, the neighbouring farmers took vast quantities for the purpose of manuring their grounds. Large shoals continued to frequent the same coast, for many years, but not always in numbers equal to these.

Many are caught on the coasts of Essex and Kent in the nets used for taking sprats. In the London market, they are most esteemed in October and November.

The usual mode of fishing for Herrings is by drift-nets, which are suspended by the upper edge from a thick rope, called the drift-rope. Skill is necessary in the use of these nets, that they may hang perpendicularly in the water, with the meshes square, smooth, and at a proper depth; for according to the wind, tide, situation of their food, and other causes, the Herrings swim at various depths below the surface. The drift-rope is attached at one end to a large buoy, the fishing boat retaining the other end, so that the nets are kept strained in a right line. This is done during the night. The fish, roving in shoals in the dark through the water, hang in the meshes of the net, which are large enough to admit them beyond the gill-covers and pectoral fins, but not large enough to allow the thick part of the body to pass through. In the morning the nets are hauled in, and the fish secured. Mackerel and pilchards are caught in a similar manner.

The Herring is a very capricious fish, seldom frequenting long the same place.



THE EEL.

ANGUILLA VULGARIS.

EELS are found in fresh water in almost every part of the world. Three or four different species of this valuable fish are known of in our own country. The London market is principally supplied from Holland, by Dutch fishermen. There are two companies in Holland, which are said to have five vessels each. The vessels are built with a capacious well, in which large quantities of Eels are preserved alive till wanted. One or more of these vessels may be generally seen off Billingsgate; the others go to Holland for fresh supplies, each bringing a cargo of from 15,000 to 20,000 pounds weight of live Eels. Eels and salmon are the only fish sold by the pound weight in the London markets.

Eels are averse to cold; there are none in the Arctic Regions, none in the rivers of Siberia, the Wolga, or the Danube. In milder regions the Eels, during the cold months of the year, remain imbedded in the mud; and large quantities are often taken by

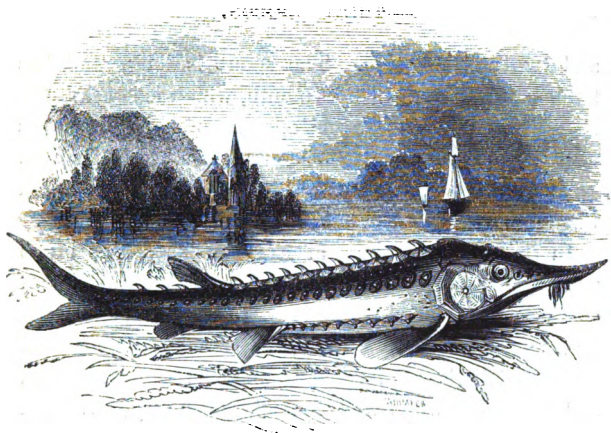
spears in the soft soils of harbours, and banks of rivers, from which the tide recedes, leaving the surface exposed. The fish bury themselves twelve or sixteen inches deep to avoid the cold.

Mr. W. Yarrell, in his "History of British Fishes," informs us, that the passage of young Eels up the Thames at Kingston, in 1832, commenced on the 30th April, and lasted till the 4th May. Some notion may be formed of the quantity of these, each about three inches long, that pass up the Thames in the Spring, from a calculation made that from 1600 to 1800 passed a given point in one minute. This passage of young eels is called *Eel-fare* on the banks of the Thames; *fare*, being the Saxon word signifying, to travel. Thus a traveller is called a *way-faring* man; the charge for travelling is called a *fare*: hence also the word *thoroughfare*.

Eels occasionally quit the water when the grass is wet, and go short distances overland to search for frogs, or other food, or to change their situation to more suitable streams. They are very voracious feeders at certain times in the year; and have been seen sometimes eating vegetable matter, aquatic plants, &c.

Ely is said to have been so named from the quantity of Eels there, and from the rents being formerly paid in this fish; Elmore, on the Severn, obtained its name from the large number of Eels. These fish are in great request in many other countries.

Ellis, in his "Polynesian Researches," says: "In Otaheite Eels are great favourites, and are tamed and fed until they reach an enormous size. These pets are kept in large holes, two or three feet deep, partially filled with water. On the sides of the pits they generally remained, except when called by the person who fed them. I have been several times with the young chief, when he sat down by the side of the hole, and, by giving a shrill sort of whistle, has brought out an enormous Eel, which has then moved about the surface of the water, and eaten with confidence out of its master's hand."



THE STURGEON.

ACIPENSER STURIO.

THIS is a sea-fish which generally inhabits the deep water beyond the reach of nets ; and is seldom, if ever, caught on the fishermen's lines. At certain seasons, however, it makes its way into the rivers. It is found on various parts of our coast, and when caught in the Thames is considered a royal fish, due to the Sovereign.

It is of large dimensions, seldom measuring less than four or five feet in length, and varying from that size to sixteen feet. When exposed at a fishmonger's shop in London, it generally attracts, by its uncommon and showy appearance, a number of spectators. The body is armed from head to tail with five rows of large bony tubercles ; one of these rows extending along the back,

and two on each side. The snout is long, and has tendrils near the tip. The mouth, which is beneath the head, is somewhat like the opening of a purse, and is very curiously formed for the creature's use in feeding.

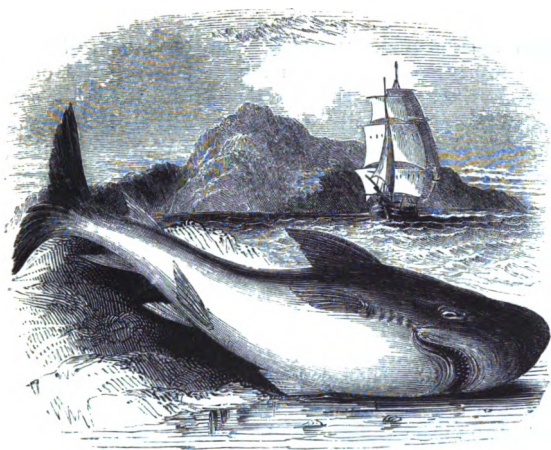
The largest Sturgeon ever known of in Great Britain was taken in the river Esk, and weighed 460 pounds.

In the northern parts of Europe this fish is much more common than with us, and is a great article of commerce. Caviar, which is reckoned a great delicacy by some, but thought unpalatable by many, is made of the roe; isinglass is formed of one of the membranes; and the flesh, when well cooked, is savoury, having a taste like veal.

It was so much valued in the time of the Emperor Severus, that the epicures of old had it brought to table with great honours, preceded by a band of music. This may have given rise to the ancient custom, in our own country, of its being presented by the Lord Mayor to the Sovereign.

Bingley calls the Sturgeon "clumsy and toothless," and tells us, that it hides its large body among the weeds in the water, only showing the tendrils which grow near its mouth. These tendrils look like worms; and the small fish and sea-insects, on approaching, intending to feed upon them, are sucked into the creature's mouth.

When the Sturgeon is caught in a net, it makes scarcely any resistance, but is drawn out of the water apparently lifeless.



THE WHITE SHARK.

CARCHARIAS VULGARIS.

THIS fish is the terror of mariners in most of the warm countries of the globe: It is fierce and voracious, and swims with amazing swiftness and ease. There are several species of Shark; and even the smaller ones are dreaded by fish much larger than themselves; but the White Shark, which grows to a large size, and sometimes weighs between 3,000 and 4,000 pounds, is considered the most terrible. The body is long, covered with a hard skin; the head large; the mouth wide; the upper jaw armed with six rows of sharp triangular teeth, and projecting far beyond the lower jaw, which has four rows of teeth, sharper than those above.

The fish before us uses these dreadful weapons with a strength and ferocity that have often proved fatal to human beings; persons while swimming have been seized and devoured by Sharks.

Derham, however, in his "Physico-Theology," remarks, that against some animals, "Divine Providence

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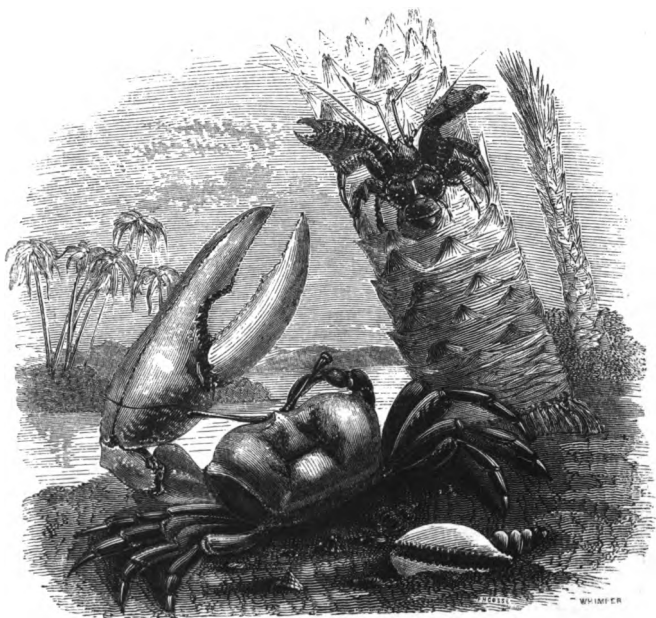
itself hath provided a guard. So the Shark, of which take my often commended friend Dr. Sloane's observation. 'It hath this particular to it, with some others of its own tribe, that the mouth is in its under part, so that it must turn the belly upwards to prey. And was it not for that time that it is in turning in which the pursued fishes escape, there would be nothing that could avoid it; for it is very quick in swimming, and hath a vast strength, with the largest swallow of any fish, and is very devouring.'—*Sloane's Voyage to Jamaica.*"

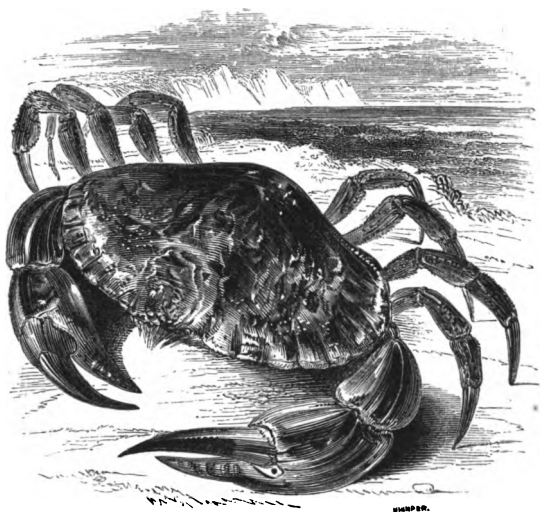
It is said that in the Pearl Fisheries of South America, the Negro diver, in order to defend himself from these monsters of the deep, carries with him into the water a sharp knife, which, if the fish offers to assault him, he endeavours to strike into his belly, on which it generally makes off.

The late Sir Brook Watson was swimming at a little distance from a ship in Montego Bay, Jamaica, when he saw a Shark approaching him. He instantly cried out for assistance, and a rope was thrown; but while the men were drawing him into the boat, the animal darted at him, and in a moment tore off his leg. The painful scene is represented in a good painting which is in the Hall of Christ's Hospital. This worthy person afterwards became Lord Mayor of London.

The White Shark, the Blue Shark, the Fox Shark, and some other species, which are more or less formidable, are occasionally met with on the British coast; most of them are well known in the Mediterranean; and they are great wanderers. The Basking Shark is harmless. The White Shark will attend a ship, in expectation of what may be thrown overboard, and will readily take a piece of flesh fastened as bait on an iron crook. When it is drawn upon deck, the sailors' first act is to chop off its head, to prevent mischief from its great strength and violence. Its flesh, though coarse, is sometimes eaten by the men on a long voyage.

CRUSTACEA.





THE CRAB.

CANCER PAGURUS.

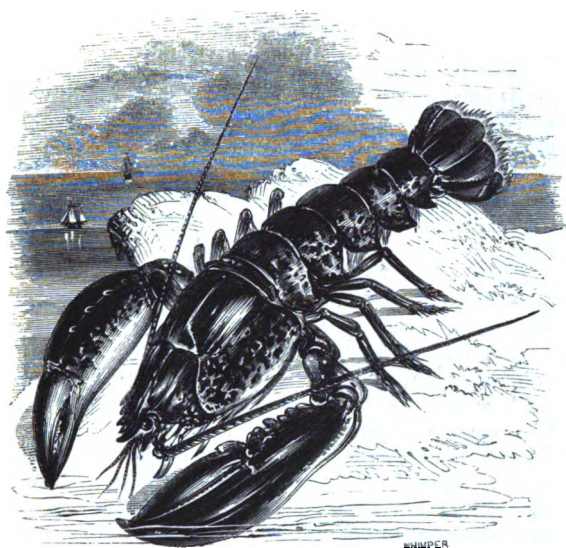
THE animals of the Crab tribe live chiefly in the sea. They are, however, amphibious, living on land as well as in water. The common Crab, represented above, which is sometimes called the Black-Clawed or Eatable Crab, is valuable as an article of food, and is found in great quantities, and of various sizes, on the rocky coasts both of Europe and India. Many are brought to the London market from the coasts of Devonshire and Dorsetshire, as well as from other parts of the country. The several species of this creature are very numerous. Some Crabs weigh several pounds, others only a few grains.

The most remarkable circumstance in their history is the changing of their shells and broken claws at certain periods. At these times, until the new shell

is formed, they retire among the hollows of the rocks, and under large stones: and Dr. Darwin, on the authority of a friend who had been engaged in surveying the sea-coasts, says that a hard-shelled Crab always stands sentinel to prevent the sea-insects from injuring their companions in their defenceless state; and that, from the appearance of this sentinel, the fishermen know where to find the soft ones, which they use for bait in catching fish. He adds, that though the hard-shelled Crab, when he is on duty, advances boldly to meet the foe, and will with difficulty quit the field; yet at other times he shows great timidity, and is very expeditious in effecting his escape from his enemies. If often interrupted, or suddenly alarmed, he will, like the spider, pretend to be dead, and will watch an opportunity to sink himself into the sand, keeping only his eyes above ground.

Crabs are naturally quarrelsome, and frequently fight among themselves. Their claws are then terrible weapons, with which they lay hold of each other's legs: wherever they seize, it is difficult to make them give up their hold; and if a claw be lost in the combat, it will, ere long, be renewed from the joint at which it was broken off. A Crab, being irritated, seized one of its own small claws with a large one. The animal did not perceive that it was itself the aggressor, and exerted its strength, and soon cracked the shell of the small claw. Feeling itself wounded, it cast off the piece in the usual place, but continued its hold with the great claw a long time afterwards.

Crabs are very tenacious of life. It is said that they will live, confined in the pot or basket in which they have been caught, for months together, without any other food than that which is collected from the sea-water.



THE LOBSTER.

HOMARUS VULGARIS.

THESE creatures live in the sea, and are found on most of the rocky coasts of Great Britain. They feed on small fish, and any animal matter they may find. Some are caught with the hand, but the greater number in pots. These are traps made of twigs, in the form of wire mouse-traps, and when properly baited, and placed, will be found to contain several lobsters. The Lobster-pots are fastened to a cord sunk in the sea, their place being marked by pieces of cork.

Under water the Lobster is able to run very swiftly on its legs or small claws; and if alarmed it can spring tail foremost to a surprising distance, almost as swiftly as a bird can fly. Large quantities of this favourite shell-fish are supplied, especially in the summer months, for the several markets

Like the rest of the crab tribe, Lobsters cast their shells once a year ; and if a claw be lost, another claw will grow in its place. The pincers of one of the claws are furnished with knobs, and those of the other are sharper, and more in the form of a saw. With the former pincer the animal keeps hold of the stalks of sea-plants, and with the latter it cuts and minces its food.

Paley, in his *Natural Theology*, (Chapter on Compensation,) speaking of the wonderful contrivance made for the renewal of the shell of the Lobster, says ; “ How, then, was the growth of the Lobster to be provided for ? Was room to be made for it in the old shell, or was it to be successively fitted with new ones ? If a change of shell became necessary, how was the Lobster to extricate himself from his present confinement ? How was he to uncase his buckler, or draw his legs out of his boots ? The process which fishermen have observed to take place is as follows :—At certain seasons the shell of the Lobster grows soft ; the animal swells its body ; the seams open, and the claws burst at the joints. When the shell has thus become loose upon the body, the animal makes a second effort, and by a tremulous, spasmodic motion, casts it off. In this state the liberated but defenceless fish retires into holes in the rock. The released body now pushes its growth. In about eight-and-forty hours a fresh concretion of humour upon the surface, that is, a new shell, is formed adapted in every part to the increased dimensions of the animal. This wonderful mutation is repeated every year.”

In another part of his work, this author says, “ The shell of a Lobster’s tail, in its articulations and overlappings, represents the jointed part of a coat of mail ; or rather, which I believe to be the truth, a coat of mail is an imitation of a Lobster’s shell.”

THUS have we concluded the descriptions of our series of Animals. Much more that is interesting and important might have been brought forward respecting each; and many other creatures might have been described in the collection. Enough, however, it is hoped, has been presented to the Reader to display, in a great degree, the beauties and wonders of creation.

In pursuing the study of what are sometimes called the works of nature, let us ever bear in mind that "the effects of nature are the works of God, whose hand and instrument only she is. And therefore to ascribe His actions unto her, is to devolve the honour of the principal Agent upon the instrument: which if with reason we may do, then let our hammers rise up, and boast they have built our houses; and let our pens receive the honour of our writings."*

* Sir Thomas Brown.



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